

=> d his ful

(FILE 'HOME' ENTERED AT 15:24:40 ON 09 MAR 2006)

FILE 'REGISTRY' ENTERED AT 15:24:44 ON 09 MAR 2006

L1 STR  
L2 1 SEA SSS SAM L1  
D SCA  
L3 23 SEA SSS FUL L1

FILE 'HCAPLUS' ENTERED AT 15:32:47 ON 09 MAR 2006

L4 528 SEA ABB=ON PLU=ON L3  
L5 2 SEA ABB=ON PLU=ON US200!-712423/APPS  
L6 2 SEA ABB=ON PLU=ON L4 AND L5  
SEL RN

FILE 'REGISTRY' ENTERED AT 15:33:25 ON 09 MAR 2006

L7 7 SEA ABB=ON PLU=ON (10597-60-1/BI OR 31773-95-2/BI OR  
34422-12-3/BI OR 58865-06-8/BI OR 11103-57-4/BI OR 315207-62-6/  
BI OR 32619-42-4/BI)  
L8 3 SEA ABB=ON PLU=ON L7 AND L3  
L9 4 SEA ABB=ON PLU=ON L7 NOT L8  
D SCA

FILE 'HCAPLUS' ENTERED AT 15:34:01 ON 09 MAR 2006

L10 117 SEA ABB=ON PLU=ON L3(L)(BAC OR DMA OR PAC OR PKT OR THU)/RL  
E ANTICANCER/CT  
E E4+ALL  
E E2+ALL  
L11 217206 SEA ABB=ON PLU=ON ANTITUMOR AGENTS+PFT,NT/CT  
L12 18 SEA ABB=ON PLU=ON L10 AND (L11 OR ?CANCER? OR ?TUMOR? OR  
?TUMOUR? OR ?NEOPLAS?)  
L13 2 SEA ABB=ON PLU=ON L6 AND L12

FILE 'MEDLINE, EMBASE, BIOSIS, USPATFULL, USPAT2' ENTERED AT 15:35:34 ON  
09 MAR 2006

L14 455 SEA ABB=ON PLU=ON L3  
L15 78 SEA ABB=ON PLU=ON L14 AND (?CANCER? OR ?TUMOR? OR ?TUMOUR?  
OR ?NEOPLAS?)  
L\*\*\* DEL 78 S L15 NOT L12

FILE 'MEDLINE, EMBASE, BIOSIS' ENTERED AT 15:36:32 ON 09 MAR 2006

L16 405 SEA ABB=ON PLU=ON L3  
L17 48 SEA ABB=ON PLU=ON L16 AND (?CANCER? OR ?TUMOR? OR ?TUMOUR?  
OR ?NEOPLAS?)

FILE HOME

FILE REGISTRY

Property values tagged with IC are from the ZIC/VINITI data file  
provided by InfoChem.

STRUCTURE FILE UPDATES: 8 MAR 2006 HIGHEST RN 876273-86-8

DICTIONARY FILE UPDATES: 8 MAR 2006 HIGHEST RN 876273-86-8

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

```
*****
*
* The CA roles and document type information have been removed from
* the IDE default display format and the ED field has been added,
* effective March 20, 2005. A new display format, IDERL, is now
* available and contains the CA role and document type information.
*
*****
```

Structure search iteration limits have been increased. See HELP SLIMITS for details.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

#### FILE HCAPLUS

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FILE COVERS 1907 - 9 Mar 2006 VOL 144 ISS 11  
FILE LAST UPDATED: 8 Mar 2006 (20060308/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

#### FILE MEDLINE

FILE LAST UPDATED: 8 MAR 2006 (20060308/UP). FILE COVERS 1950 TO DATE.

On December 11, 2005, the 2006 MeSH terms were loaded.

The MEDLINE reload for 2006 is now (26 Feb.) available. For details on the 2006 reload, enter HELP RLOAD at an arrow prompt (=>). See also:

<http://www.nlm.nih.gov/mesh/>  
[http://www.nlm.nih.gov/pubs/techbull/nd04/nd04\\_mesh.html](http://www.nlm.nih.gov/pubs/techbull/nd04/nd04_mesh.html)  
[http://www.nlm.nih.gov/pubs/techbull/nd05/nd05\\_med\\_data\\_changes.html](http://www.nlm.nih.gov/pubs/techbull/nd05/nd05_med_data_changes.html)  
[http://www.nlm.nih.gov/pubs/techbull/nd05/nd05\\_2006\\_MeSH.html](http://www.nlm.nih.gov/pubs/techbull/nd05/nd05_2006_MeSH.html)

OLDMEDLINE is covered back to 1950.

MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the MeSH 2006 vocabulary.

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE EMBASE

FILE COVERS 1974 TO 3 Mar 2006 (20060303/ED)

EMBASE has been reloaded. Enter HELP RLOAD for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE BIOSIS

FILE COVERS 1969 TO DATE.

CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNS) PRESENT FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 9 March 2006 (20060309/ED)

FILE USPATFULL

FILE COVERS 1971 TO PATENT PUBLICATION DATE: 7 Mar 2006 (20060307/PD)

FILE LAST UPDATED: 7 Mar 2006 (20060307/ED)

HIGHEST GRANTED PATENT NUMBER: US7010810

HIGHEST APPLICATION PUBLICATION NUMBER: US2006048257

CA INDEXING IS CURRENT THROUGH 7 Mar 2006 (20060307/UPCA)

ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 7 Mar 2006 (20060307/PD)

REVISED CLASS FIELDS (/NCL) LAST RELOADED: Dec 2005

USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Dec 2005

FILE USPAT2

FILE COVERS 2001 TO PUBLICATION DATE: 7 Mar 2006 (20060307/PD)

FILE LAST UPDATED: 7 Mar 2006 (20060307/ED)

HIGHEST GRANTED PATENT NUMBER: US2005064265

HIGHEST APPLICATION PUBLICATION NUMBER: US2006047476

CA INDEXING IS CURRENT THROUGH 7 Mar 2006 (20060307/UPCA)

ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 7 Mar 2006 (20060307/PD)

REVISED CLASS FIELDS (/NCL) LAST RELOADED: Dec 2005

USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Dec 2005

=> fil hcap

FILE 'HCAPLUS' ENTERED AT 15:37:22 ON 09 MAR 2006

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Page 4

L10 117 SEA FILE=HCAPLUS ABB=ON PLU=ON L3(L) (BAC OR DMA OR PAC OR  
PKT OR THU)/RL  
L11 217206 SEA FILE=HCAPLUS ABB=ON PLU=ON ANTITUMOR AGENTS+PFT,NT/CT  
L12 18 SEA FILE=HCAPLUS ABB=ON PLU=ON L10 AND (L11 OR ?CANCER? OR  
?TUMOR? OR ?TUMOUR? OR ?NEOPLAS?)

=> fil medline embase biosis

FILE 'MEDLINE' ENTERED AT 15:37:46 ON 09 MAR 2006

FILE 'EMBASE' ENTERED AT 15:37:46 ON 09 MAR 2006

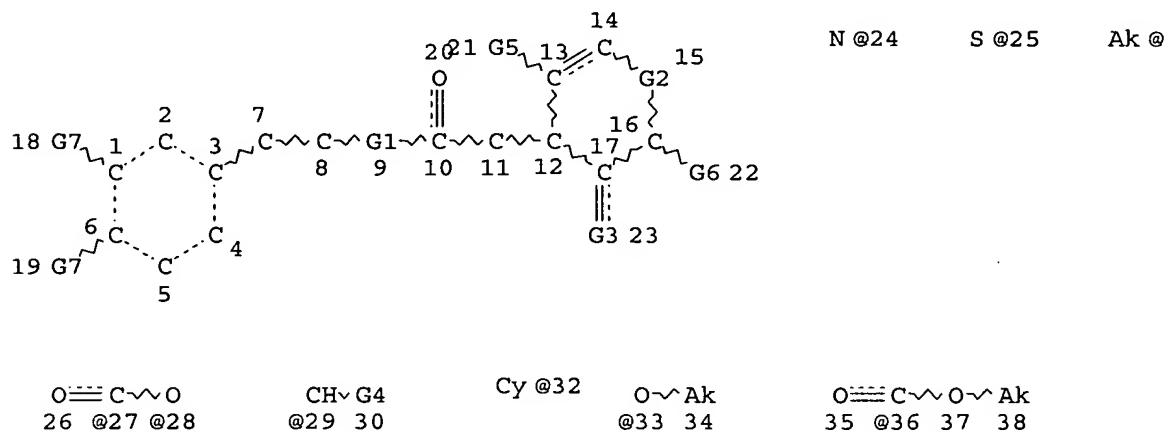
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FILE 'BIOSIS' ENTERED AT 15:37:46 ON 09 MAR 2006

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=> d que stat l17

L1 STR



Page 1-A

31

Page 1-B

VAR G1=CH2/O/S/27-8 28-10/27-10 28-8  
VAR G2=CH2/O/S/27-14 28-16/28-14 27-16  
VAR G3=CH2/29  
VAR G4=31/32/OH/33/X/NO2/24  
VAR G5=H/31/32/OH/33/X/NO2/24/36  
VAR G6=O/S/CH2/27/28  
VAR G7=OH/24/25

NODE ATTRIBUTES:

CONNECT IS E1 RC AT 24  
CONNECT IS E1 RC AT 25  
CONNECT IS E1 RC AT 31  
CONNECT IS E1 RC AT 32  
CONNECT IS E1 RC AT 34  
CONNECT IS E1 RC AT 38

DEFAULT MLEVEL IS ATOM

GGCAT IS UNS AT 32

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 38

STEREO ATTRIBUTES: NONE

L3 23 SEA FILE=REGISTRY SSS FUL L1  
L16 405 SEA L3  
L17 48 SEA L16 AND (?CANCER? OR ?TUMOR? OR ?TUMOUR? OR ?NEOPLAS?)

=> dup rem l12 l17

FILE 'HCAPLUS' ENTERED AT 15:37:55 ON 09 MAR 2006  
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PROCESSING COMPLETED FOR L12

PROCESSING COMPLETED FOR L17

L18 47 DUP REM L12 L17 (19 DUPLICATES REMOVED)  
ANSWERS '1-18' FROM FILE HCAPLUS  
ANSWERS '19-22' FROM FILE MEDLINE  
ANSWERS '23-39' FROM FILE EMBASE  
ANSWERS '40-47' FROM FILE BIOSIS

=> d l18 ibib abs hitstr 1-18, d ibib abs hitind 19-47

'D' IS NOT A VALID FORMAT

In a multifile environment, a format can only be used if it is valid  
in at least one of the files. Refer to file specific help messages  
or the STNGUIDE file for information on formats available in  
individual files.

REENTER DISPLAY FORMAT FOR ALL FILES (FILEDEFAULT):end

=> d l18 ibib abs hitstr 1-18;d l18 ibib abs hitind 19-47

L18 ANSWER 1 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 1

ACCESSION NUMBER: 2005:690071 HCAPLUS

DOCUMENT NUMBER: 143:166226

TITLE: Oleuropein, a non-toxic olive iridoid, is an anti-  
**tumor** agent and cytoskeleton disruptor

AUTHOR(S): Hamdi, Hamdi K.; Castellon, Raquel

CORPORATE SOURCE: H2RC Corporation, Orange, CA, 92867, USA

SOURCE: Biochemical and Biophysical Research Communications  
(2005), 334(3), 769-778

CODEN: BBRCA9; ISSN: 0006-291X

PUBLISHER: Elsevier

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Oleuropein, a non-toxic secoiridoid derived from the olive tree, is a  
powerful antioxidant and anti-angiogenic agent. Here, we show it to be a  
potent anti-**cancer** compound, directly disrupting actin filaments  
in cells and in a cell-free assay. Oleuropein inhibited the proliferation  
and migration of advanced-grade **tumor** cell lines in a  
dose-responsive manner. In a novel tube-disruption assay, Oleuropein

irreversibly rounded **cancer** cells, preventing their replication, motility, and invasiveness; these effects were reversible in normal cells. When administered orally to mice that developed spontaneous **tumors**, Oleuropein completely regressed **tumors** in 9-12 days. When **tumors** were resected prior to complete regression, they lacked cohesiveness and had a crumbly consistency. No viable cells could be recovered from these **tumors**. These observations elevate Oleuropein from a non-toxic antioxidant into a potent anti-tumor agent with direct effects against **tumor** cells. Our data may also explain the **cancer**-protective effects of the olive-rich Mediterranean diet.

IT 32619-42-4, Oleuropein

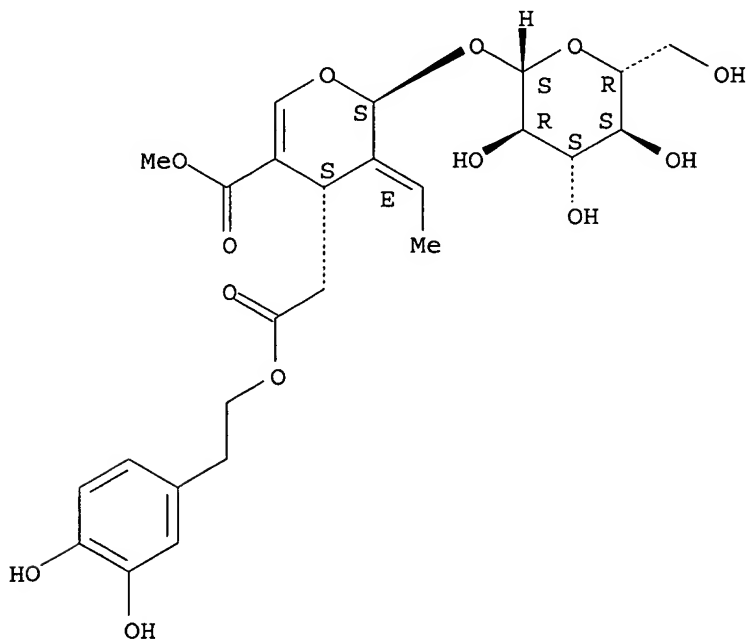
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(Oleuropein, a non-toxic olive iridoid, is an anti-tumor agent and cytoskeleton disruptor)

RN 32619-42-4 HCAPLUS

CN 2H-Pyran-4-acetic acid, 3-ethylidene-2-( $\beta$ -D-glucopyranosyloxy)-3,4-dihydro-5-(methoxycarbonyl)-, 2-(3,4-dihydroxyphenyl)ethyl ester, (2S,3E,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).  
Double bond geometry as shown.



REFERENCE COUNT: 51 THERE ARE 51 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 2 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 8

ACCESSION NUMBER: 2001:818973 HCAPLUS

DOCUMENT NUMBER: 137:15715

TITLE: The inhibitory effects of compounds from olive leaf on **tumor** necrosis factor production and on

**AUTHOR(S) :**  $\beta$ -hexosaminidase release  
Nishibe, Sansei; Han, Yingmei; Noguchi, Yukari; Ueda,  
Hiroshi; Yamazaki, Masatoshi; Mizutani, Kenji;  
Kambara, Toshimitsu; Kishida, Naoko

**CORPORATE SOURCE:** Faculty of Pharmaceutical Sciences, Health Sciences  
University of Hokkaido, Ishikari-Tobetsu, Hokkaido,  
061-0293, Japan

**SOURCE:** Natural Medicines (Tokyo, Japan) (2001), 55(4),  
205-208  
CODEN: NMEDEO; ISSN: 1340-3443

**PUBLISHER:** Japanese Society of Pharmacognosy

**DOCUMENT TYPE:** Journal

**LANGUAGE:** English

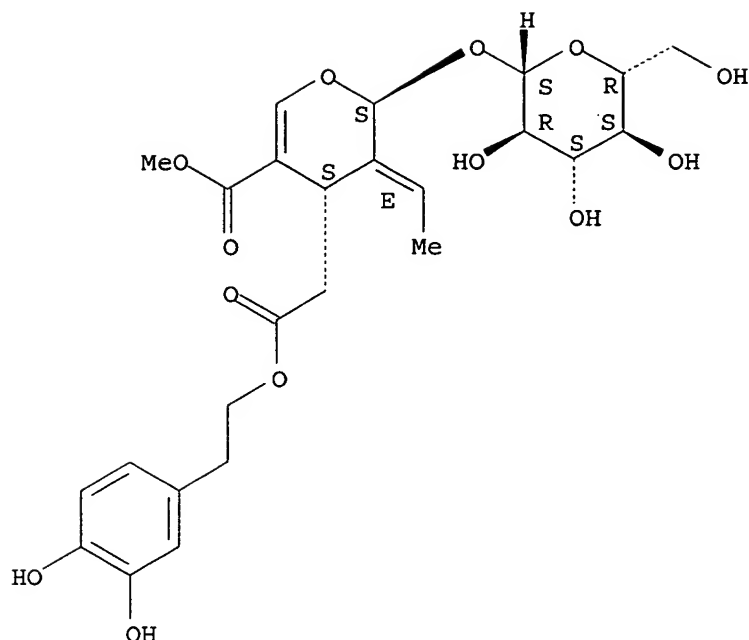
**AB** The extraction and isolation of olive leaf gave luteolin 7-O-glucoside, luteolin 4'-O-glucoside and oleuropein as the major components. The inhibitory effects of these compds. on tumor necrosis factor (TNF- $\alpha$ ) production and on  $\beta$ -hexosaminidase release from rat basophilic leukemia (RBL-2H3) cells, which were both recently found to be linked to allergic reaction, were examined. Oleuropein showed a potent inhibitory effect on TNF- $\alpha$  production. Luteolin 4'-O-glucoside showed a strong inhibitory effect on  $\beta$ -hexosaminidase release (IC<sub>50</sub>:17.1  $\mu$ g/mL).

**IT** 32619-42-4P, Oleuropein  
RL: NPO (Natural product occurrence); PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)  
(inhibitory effects of compds. from olive leaf on tumor necrosis factor production and on  $\beta$ -hexosaminidase release)

**RN** 32619-42-4 HCAPLUS

**CN** 2H-Pyran-4-acetic acid, 3-ethylidene-2-( $\beta$ -D-glucopyranosyloxy)-3,4-dihydro-5-(methoxycarbonyl)-, 2-(3,4-dihydroxyphenyl)ethyl ester, (2S,3E,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).  
Double bond geometry as shown.



REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 3 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 10

ACCESSION NUMBER: 1999:467227 HCAPLUS

DOCUMENT NUMBER: 131:226102

TITLE: Studies on constituents with cytotoxic activity from the stem bark of *Syringa velutina*

AUTHOR(S): Park, Hee-Juhn; Lee, Myung-Sun; Lee, Kyung-Tae; Sohn, Il-Cheol; Han, Yong-Nam; Miyamoto, Ken-Ichi

CORPORATE SOURCE: Department of Botanical Resources, Sangi University, Wonju, 220-702, S. Korea

SOURCE: Chemical & Pharmaceutical Bulletin (1999), 47(7), 1029-1031

CODEN: CPBTAL; ISSN: 0009-2363

PUBLISHER: Pharmaceutical Society of Japan

DOCUMENT TYPE: Journal

LANGUAGE: English

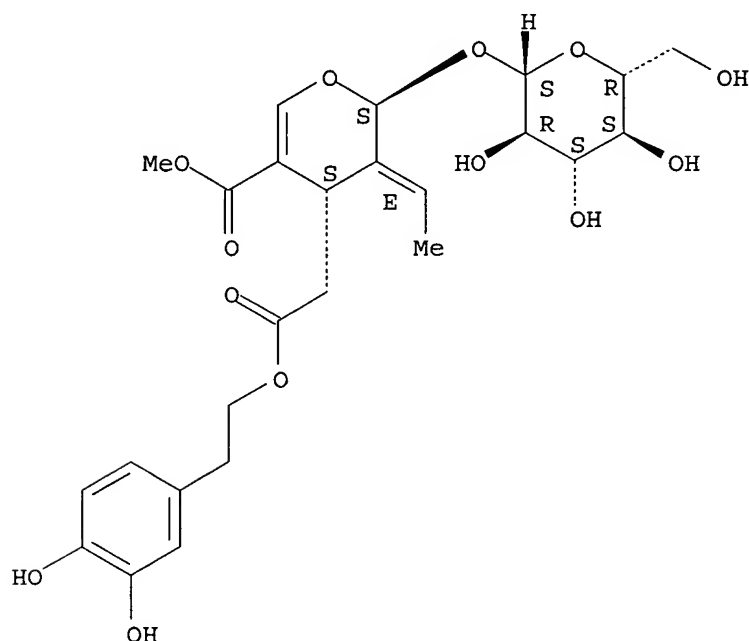
AB Cytotoxic compds., oleuropein and a phenylethanoid glycoside (I) were isolated from the stem bark of *Syringa velutina* KOM. along with coniferylaldehyde 4-O-glucoside, syringin, ligstroside, (+)-syringaresinol 4-O-glucoside, (+)-medioresinol 4''-O-glucoside and (-)-olivil 4''-O-glucoside. I was identified to be 3,4-dihydroxyphenylethyl alc. 8-O-β-D-glucopyranoside. Alc. 8-O-β-D-glucopyranoside. This compound showed the most potent cytotoxic effect on several tumor cell lines (P-388, L-1210, SNU-5 and HL-60) among eight compds. isolated in the present study. We suggest that the 3,4-dihydroxyphenylethoxy moiety of this compound contributes to cytotoxicity.

IT 32619-42-4, Oleuropein

RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)  
(cytotoxic activities of constituents from stem bark of *Syringa velutina*)

RN 32619-42-4 HCAPLUS  
 CN 2H-Pyran-4-acetic acid, 3-ethylidene-2-( $\beta$ -D-glucopyranosyloxy)-3,4-dihydro-5-(methoxycarbonyl)-, 2-(3,4-dihydroxyphenyl)ethyl ester, (2S,3E,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).  
 Double bond geometry as shown.



REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 4 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 11

ACCESSION NUMBER: 1998:20210 HCAPLUS

DOCUMENT NUMBER: 128:162831

TITLE: Oleuropein, the bitter principle of olives, enhances nitric oxide production by mouse macrophages

AUTHOR(S): Visioli, Francesco; Bellosta, Stefano; Galli, Claudio

CORPORATE SOURCE: Institute of Pharmacological Sciences, Milan, 20133, Italy

SOURCE: Life Sciences (1998), 62(6), 541-546

CODEN: LIFSAK; ISSN: 0024-3205

PUBLISHER: Elsevier Science Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The Mediterranean diet, rich in fresh fruits and vegetables, has been associated with a lower incidence of cardiovascular disease and **cancer**, partly because of its high proportion of bioactive compds. such as vitamins, flavonoids and polyphenols. The major lipid component of such diet is the drupe-derived olive oil, that can be distinguished from other seed oils for the peculiar composition of its non-triglyceride fraction. In fact, several minor components, including polyphenols, grant the oil its particular taste and aroma. Oleuropein, the most abundant

among these components, has been shown to be a potent antioxidant endowed with antiinflammatory properties. We investigated the effects of oleuropein on NO release in cell culture and its activity toward nitric oxide synthase (iNOS) expression. The results show that oleuropein dose-dependently enhance nitrite production in LPS-challenged mouse macrophages. This effect was blocked by the iNOS inhibitor L-NAME, indicating increased iNOS activity. Also, Western blot anal. of cell homogenates show that oleuropein increases iNOS expression in such cells. Taken together, our data suggest that, during endotoxin challenge, oleuropein potentiates the macrophage-mediated response, resulting in higher NO production, currently believed to be beneficial for cellular and organismal protection.

IT 32619-42-4, Oleuropein

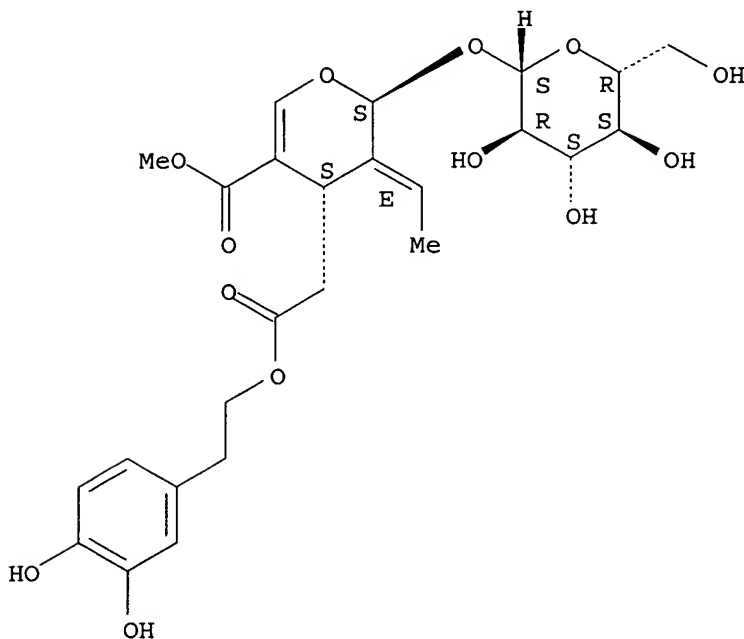
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(oleuropein from olive oil enhances nitric oxide production by macrophages)

RN 32619-42-4 HCAPLUS

CN 2H-Pyran-4-acetic acid, 3-ethylidene-2-( $\beta$ -D-glucopyranosyloxy)-3,4-dihydro-5-(methoxycarbonyl)-, 2-(3,4-dihydroxyphenyl)ethyl ester, (2S,3E,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).  
Double bond geometry as shown.



REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 5 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 12

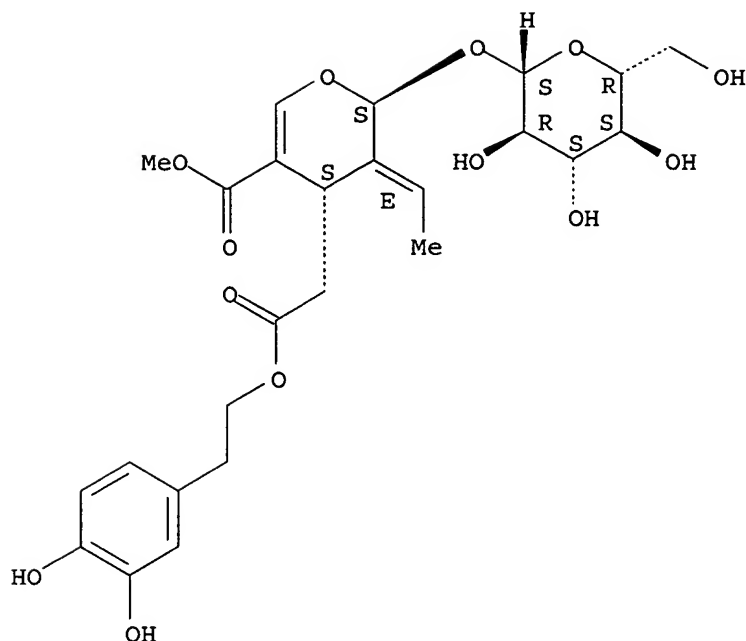
ACCESSION NUMBER: 1998:380086 HCAPLUS

DOCUMENT NUMBER: 129:81138

TITLE: Free radical-scavenging properties of olive oil

polyphenols  
AUTHOR(S): Visioli, Francesco; Bellomo, Giorgio; Galli, Claudio  
CORPORATE SOURCE: Institute of Pharmacological Sciences, University of  
Milan, Italy  
SOURCE: Biochemical and Biophysical Research Communications  
(1998), 247(1), 60-64  
CODEN: BBRCA9; ISSN: 0006-291X  
PUBLISHER: Academic Press  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB Plants in the Mediterranean basin, such as vine and olive trees, have  
developed an array of antioxidant defences to protect themselves from  
environmental stress. Accordingly, the incidence of coronary heart  
disease and certain **cancers** is lower in the Mediterranean area,  
where olive oil is the dietary fat of choice. As opposed to other  
vegetable oils, extra virgin olive oil, which is obtained by phys.  
pressure from a whole fruit, is rich in phenolic components that are  
responsible for the particular stability of the oil. We have investigated  
the scavenging actions of some olive oil phenolics, namely hydroxytyrosol  
and oleuropein, with respect to superoxide anion generation, neutrophils  
respiratory burst, and hypochlorous acid. The low EC50s indicate that  
both compds. are potent scavengers of superoxide radicals and inhibitors  
of neutrophils respiratory burst: whenever demonstrated in vivo, these  
properties may partially explain the observed lower incidence of CHD and  
**cancer** associated with the Mediterranean diet.  
IT 32619-42-4, Oleuropein  
RL: BAC (Biological activity or effector, except adverse); BSU  
(Biological study, unclassified); BIOL (Biological study)  
(free radical-scavenging properties of olive oil polyphenols)  
RN 32619-42-4 HCAPLUS  
CN 2H-Pyran-4-acetic acid, 3-ethylidene-2-( $\beta$ -D-glucopyranosyloxy)-3,4-  
dihydro-5-(methoxycarbonyl)-, 2-(3,4-dihydroxyphenyl)ethyl ester,  
(2S,3E,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).  
Double bond geometry as shown.



REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 6 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:612049 HCAPLUS

DOCUMENT NUMBER: 143:138683

TITLE: Oral hygiene solution that can be added to drinking water

INVENTOR(S): Romanowski, Radek; Emily, Peter; Alkemade, Stan

PATENT ASSIGNEE(S): Imrex, Inc., Can.

SOURCE: PCT Int. Appl., 39 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005063184	A1	20050714	WO 2004-US42905	20041221
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2005158252	A1	20050721	US 2004-18851	20041221

PRIORITY APPLN. INFO.: US 2003-532303P P 20031222  
 AB The present invention comprises novel compns. and methods for oral hygiene

and for treating and preventing oral disease in humans and in animals. In one embodiment, the novel compns. of the present invention comprise a unique oral hygiene solution that can be added to drinking water. The invention provides compns. and methods for maintaining oral health that are convenient to use and are formulated so that they are safe for regular use by humans and animals. A formulation contained purified water, glycerol, hydroxymethyl cellulose, xylitol, Polysorbate 20, K sorbate\Na benzoate, barley malt extract, chlorhexidine digluconate and D&C Blue #1.

IT 32619-42-4, Oleuropein

RL: COS (Cosmetic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

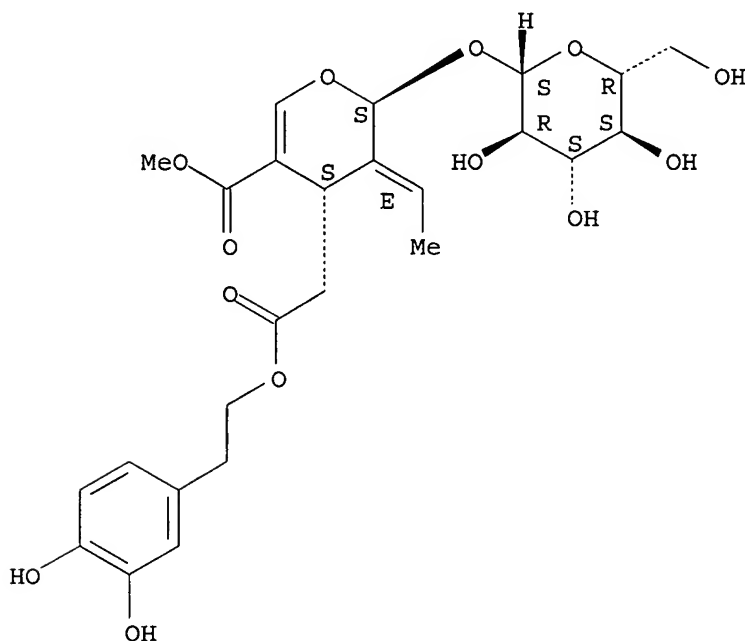
(oral hygiene solution that can be added to drinking water)

RN 32619-42-4 HCAPLUS

CN 2H-Pyran-4-acetic acid, 3-ethylidene-2-( $\beta$ -D-glucopyranosyloxy)-3,4-dihydro-5-(methoxycarbonyl)-, 2-(3,4-dihydroxyphenyl)ethyl ester, (2S,3E,4S) - (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

Double bond geometry as shown.



REFERENCE COUNT:

1

THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 7 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:1311702 HCAPLUS

DOCUMENT NUMBER: 144:57525

TITLE: Coated vaginal devices for vaginal delivery of therapeutically effective and/or health-promoting agents

INVENTOR(S): Wilson, Michelle; Desai, Kishorkumar J.; Pauletti, Giovanni M.; Antoon, Mitchell K.; Clendening, Chris E.

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 40 pp., Cont.-in-part of U.S.  
 Ser. No. 126,863  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 11  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005276836	A1	20051215	US 2005-180076	20050712
US 6197327	B1	20010306	US 1998-79897	19980515
US 6086909	A	20000711	US 1999-249963	19990212
US 6572874	B1	20030603	US 2000-626025	20000727
NZ 508130	A	20020301	NZ 2000-508130	20001113
AU 765269	B2	20030911	AU 2001-54192	20010703
US 2003049302	A1	20030313	US 2002-226667	20020821
US 6982091	B2	20060103		
US 2004005345	A1	20040108	US 2003-349029	20030122
US 6905701	B2	20050614		
US 2004043071	A1	20040304	US 2003-600849	20030620
US 2005249774	A1	20051110	US 2005-126863	20050510
US 2006002966	A1	20060105	US 2005-208209	20050818

## PRIORITY APPLN. INFO.:

US 1997-49325P	P	19970611
US 1998-79897	A2	19980515
US 1999-249963	A2	19990212
US 2000-626025	A2	20000727
US 2002-226667	A2	20020821
US 2003-349029	A2	20030122
US 2003-600849	A2	20030620
US 2004-587454P	P	20040712
US 2005-126863	A2	20050510
AU 1998-76976	A3	19980610
NZ 1998-502120	A1	19980610
US 1999-146218P	P	19990728
US 2001-315877P	P	20010829
US 2002-390748P	P	20020621

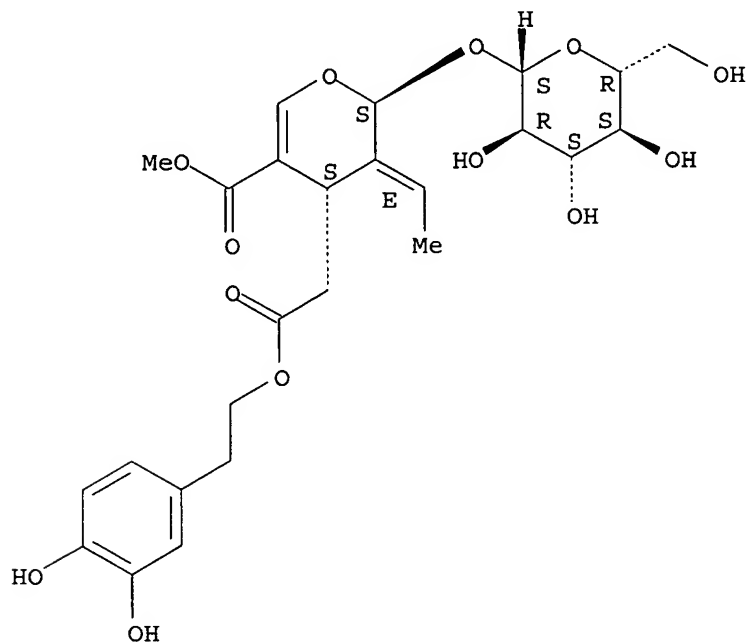
AB Disclosed is a vaginal device for delivering therapeutical and/or health-promoting agents. The vaginal device partly or completely coated by, covered by or combined with a coating or covering comprising a film, foam, strip, cap, cup or particles. The coating of the device comprises a mucoadhesive composition comprising a therapeutical and/or health-promoting agent. For example, sumatriptan vaginal suppository were prepared from Suppocire AS2X, hydroxypropyl Me cellulose as a mucoadhesive agent, and Transcutol as a permeation enhancer.

IT 32619-42-4, Oleuropein 90357-06-5, Bicalutamide  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (coated vaginal devices for vaginal delivery of therapeutically effective and/or health-promoting agents)

RN 32619-42-4 HCAPLUS

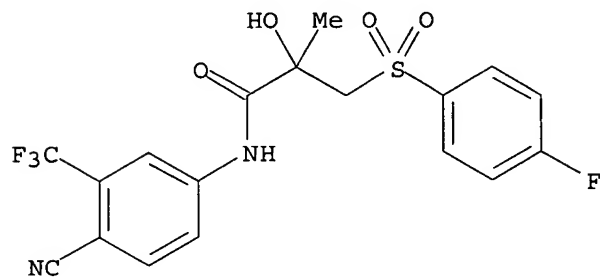
CN 2H-Pyran-4-acetic acid, 3-ethylidene-2-( $\beta$ -D-glucopyranosyloxy)-3,4-dihydro-5-(methoxycarbonyl)-, 2-(3,4-dihydroxyphenyl)ethyl ester, (2S,3E,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).  
 Double bond geometry as shown.



RN 90357-06-5 HCAPLUS

CN Propanamide, N-[4-cyano-3-(trifluoromethyl)phenyl]-3-[(4-fluorophenyl)sulfonyl]-2-hydroxy-2-methyl- (9CI) (CA INDEX NAME)



L18 ANSWER 8 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:1022541 HCAPLUS

DOCUMENT NUMBER: 143:278701

TITLE: Potential anti-cancer effects of virgin olive oil phenols on colorectal carcinogenesis models in vitro

AUTHOR(S): Gill, Chris I. R.; Boyd, Adele; McDermott, Emily; McCann, Mark; Servili, Maurizio; Selvaggini, Roberto; Taticchi, Agnese; Esposto, Sonia; Montedoro, Gianfrancesco; McGlynn, Hugh; Rowland, Ian

CORPORATE SOURCE: Northern Ireland Centre for Food and Health, University of Ulster (Coleraine), Coleraine, Co. Londonderry, UK

SOURCE: International Journal of Cancer (2005), 117(1), 1-7

CODEN: IJCNAW; ISSN: 0020-7136

PUBLISHER: Wiley-Liss, Inc.

DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB The traditional Mediterranean diet is thought to represent a healthy lifestyle; especially given the incidence of several **cancers** including colorectal **cancer** is lower in Mediterranean countries compared to Northern Europe. Olive oil, a central component of the Mediterranean diet, is believed to beneficially affect numerous biol. processes. We used phenols extracted from virgin olive oil on a series of in vitro systems that model important stages of colon carcinogenesis. The effect the extract on DNA damage induced by hydrogen peroxide was measured in HT29 cells using single cell microgel-electrophoresis. A significant anti-genotoxic linear trend ( $p = 0.011$ ) was observed when HT29 cells were preincubated with olive oil phenols (0, 5, 10, 25, 50, 75, 100  $\mu\text{g/mL}$ ) for 24 h, then challenged with hydrogen peroxide. The olive oil phenols (50, 100  $\mu\text{g/mL}$ ) significantly ( $p = 0.004$ ,  $p = 0.002$ ) improved barrier function of CACO2 cells after 48 h as measured by transepithelial resistance. Significant inhibition of HT115 invasion ( $p < 0.01$ ) was observed at olive oil phenols concns. of 25, 50, 75, 100  $\mu\text{g/mL}$  using the matrigel invasion assay. No effect was observed on HT115 viability over the concentration range

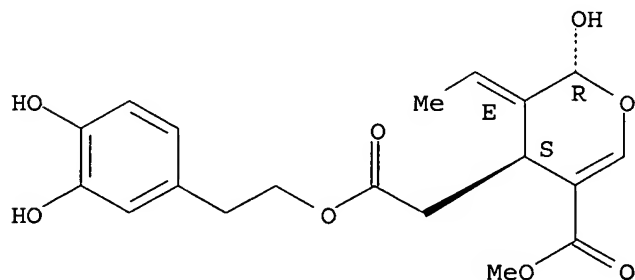
0, 25, 50 75, 100  $\mu\text{g/mL}$  after 24 h, although 75 and 100  $\mu\text{g/mL}$  olive oil phenols significantly inhibited HT115 cell attachment ( $p = 0.011$ ,  $p = 0.006$ ). Olive oil phenols had no significant effect on metastasis-related gene expression in HT115 cells. We have demonstrated that phenols extracted from virgin olive oil are capable of inhibiting several stages in colon carcinogenesis in vitro.

IT 31773-95-2, Oleuropein aglycon  
 RL: NPO (Natural product occurrence); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)  
 (anti-**cancer** effects of virgin olive oil phenols on colorectal carcinogenesis models)

RN 31773-95-2 HCAPLUS

CN 2H-Pyran-4-acetic acid, 3-ethylidene-3,4-dihydro-2-hydroxy-5-(methoxycarbonyl)-, 2-(3,4-dihydroxyphenyl)ethyl ester, (2R,3E,4S)- (9CI)  
 (CA INDEX NAME)

Absolute stereochemistry.  
 Double bond geometry as shown.



REFERENCE COUNT: 61 THERE ARE 61 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 9 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:414605 HCAPLUS

DOCUMENT NUMBER: 140:400046

TITLE: Methods for inhibiting cancer and scar

formation  
 INVENTOR(S): Hamdi, Hamdi K.; Castellon, Raquel  
 PATENT ASSIGNEE(S): USA  
 SOURCE: U.S. Pat. Appl. Publ., 24 pp., Cont.-in-part of U.S.  
 657,414.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 3  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004097428	A1	20040520	US 2003-712423	20031113
US 2003004117	A1	20030102	US 2002-153003	20020522
US 6632798	B2	20031014		
US 2004048808	A1	20040311	US 2003-657414	20030908
CA 2508786	AA	20040624	CA 2003-2508786	20031204
WO 2004053067	A2	20040624	WO 2003-US38564	20031204
WO 2004053067	A3	20040819		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1569516	A2	20050907	EP 2003-812800	20031204
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
PRIORITY APPLN. INFO.:				
			US 2002-153003	A1 20020522
			US 2002-431780P	P 20021209
			US 2003-657414	A2 20030908
			US 2001-292947P	P 20010523
			US 2003-712423	A 20031113
			WO 2003-US38564	W 20031204

OTHER SOURCE(S): MARPAT 140:400046

AB Methods are disclosed for inhibiting **cancer**, scar formation, disrupting the cellular cytoskeleton, and conferring resistance from infection are disclosed. Such methods comprise the administration of oleuropein and/or the products of its hydrolysis in therapeutically effective amts. To that end, a variety of pharmaceutical formulations and routes or administration are disclosed and may be utilized to treat a wide variety of diseases.

IT 31773-95-2, Oleuropein aglycone

RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

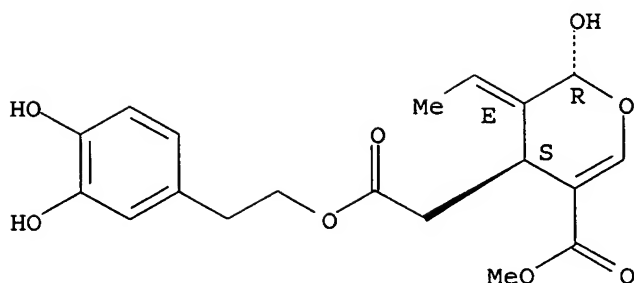
(methods for inhibiting **cancer** and scar formation)

RN 31773-95-2 HCAPLUS

CN 2H-Pyran-4-acetic acid, 3-ethylidene-3,4-dihydro-2-hydroxy-5-(methoxycarbonyl)-, 2-(3,4-dihydroxyphenyl)ethyl ester, (2R,3E,4S)- (9CI)  
 (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.



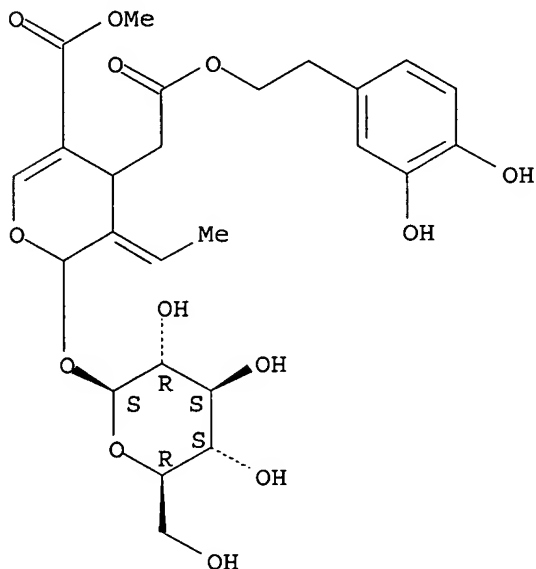
IT 315207-62-6

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(methods for inhibiting cancer and scar formation)

RN 315207-62-6 HCAPLUS

CN 2H-Pyran-4-acetic acid, 3-ethylidene-2-(β-D-glucopyranosyloxy)-3,4-dihydro-5-(methoxycarbonyl)-, 2-(3,4-dihydroxyphenyl)ethyl ester (9CI)  
(CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry unknown.



L18 ANSWER 10 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:203543 HCAPLUS

DOCUMENT NUMBER: 140:229477

TITLE: Methods using oleuropein and related compounds for inhibiting angiogenesis, and therapeutic use

INVENTOR(S): Hamdi, Hamdi K.; Tavis, Jeffrey H.; Castellon, Raquel

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 23 pp., Cont.-in-part of U.S. Ser. No. 153,003.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 3  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004048808	A1	20040311	US 2003-657414	20030908
US 2003004117	A1	20030102	US 2002-153003	20020522
US 6632798	B2	20031014		
US 2004097428	A1	20040520	US 2003-712423	20031113
PRIORITY APPLN. INFO.:			US 2001-292947P	P 20010523
			US 2002-153003	A2 20020522
			US 2002-431780P	P 20021209
			US 2003-657414	A2 20030908

OTHER SOURCE(S): MARPAT 140:229477

AB Methods for inhibiting angiogenesis are disclosed which comprise administering oleuropein and/or the products of its hydrolysis in therapeutically effective amts. The methods and compns. of the invention are particularly effective in inhibiting the vascularization of endothelial cells, and may be utilized to treat a wide variety of **cancers**, ocular diseases, and inflammatory conditions.

IT 31773-95-2, Oleuropein aglycone 32619-42-4, Oleuropein

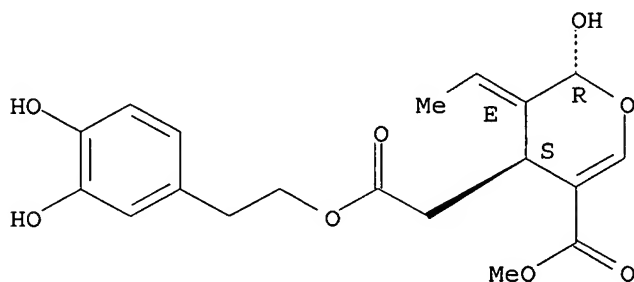
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(oleuropein and related compds. for inhibiting angiogenesis, and therapeutic use)

RN 31773-95-2 HCAPLUS

CN 2H-Pyran-4-acetic acid, 3-ethylidene-3,4-dihydro-2-hydroxy-5-(methoxycarbonyl)-, 2-(3,4-dihydroxyphenyl)ethyl ester, (2R,3E,4S)- (9CI) (CA INDEX NAME)

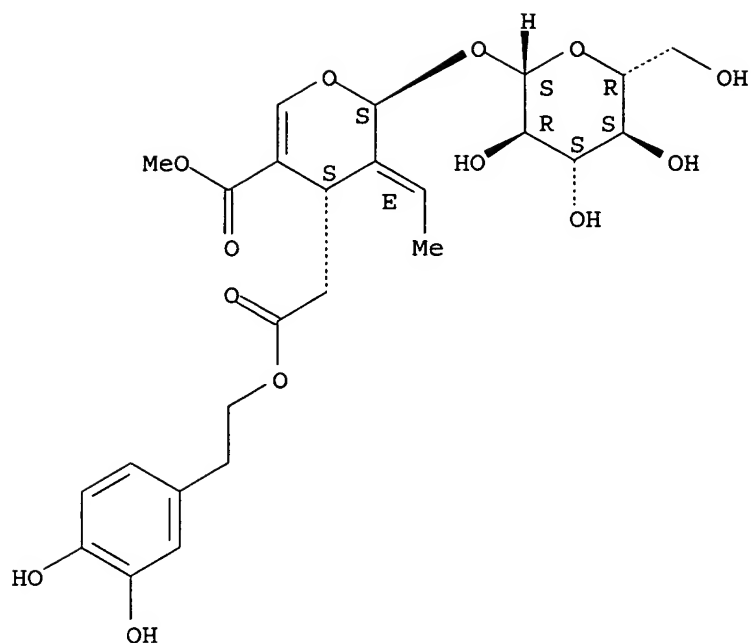
Absolute stereochemistry.  
 Double bond geometry as shown.



RN 32619-42-4 HCAPLUS

CN 2H-Pyran-4-acetic acid, 3-ethylidene-2-(β-D-glucopyranosyloxy)-3,4-dihydro-5-(methoxycarbonyl)-, 2-(3,4-dihydroxyphenyl)ethyl ester, (2S,3E,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).  
 Double bond geometry as shown.



L18 ANSWER 11 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:841825 HCAPLUS

DOCUMENT NUMBER: 141:307571

TITLE: Nutritional or therapeutic composition containing an oleuropein compound or the one of its derivatives  
INVENTOR(S): Coxam, Veronique; Skaltsounis, Leandros; Puel, Caroline; Mazur, Andre

PATENT ASSIGNEE(S): Institut National de la Recherche Agronomique INRA, Fr.

SOURCE: Fr. Demande, 36 pp.

CODEN: FRXXBL

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2853549	A1	20041015	FR 2003-4584	20030411
CA 2521967	AA	20041028	CA 2004-2521967	20040409
WO 2004091591	A2	20041028	WO 2004-FR50156	20040409
WO 2004091591	A3	20041125		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

EP 1617836 A2 20060125 EP 2004-742843 20040409

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR

PRIORITY APPLN. INFO.: FR 2003-4584 A 20030411

WO 2004-FR50156 W 20040409

AB A nutritional or a pharmaceutical composition for human or veterinary use comprises oleuropeine or one of its derivs. Osteoprotective efficacy of the composition was shown in ovariectomized rats.

IT 32619-42-4P, Oleuropein

RL: PAC (Pharmacological activity); SPN (Synthetic preparation);  
THU (Therapeutic use); BIOL (Biological study); PREP  
(Preparation); USES (Uses)

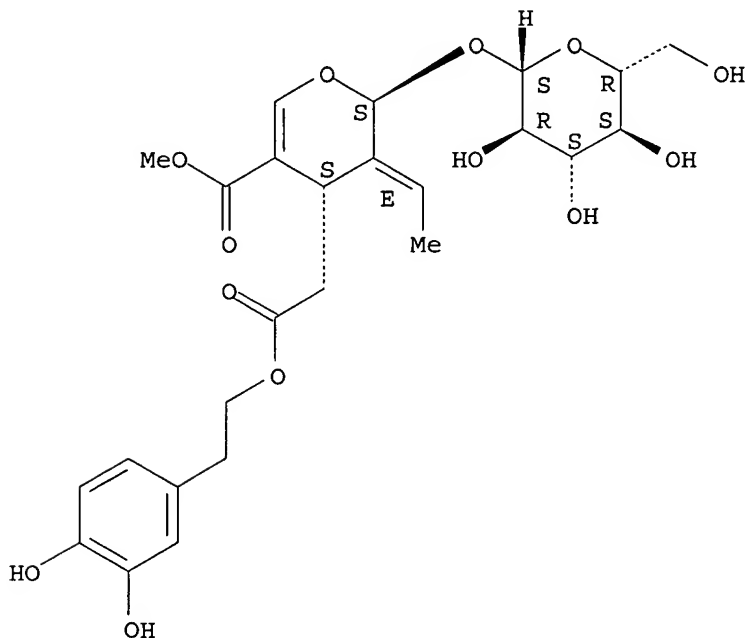
(nutritional or therapeutic composition containing oleuropein compound or one of its derivs.)

RN 32619-42-4 HCAPLUS

CN 2H-Pyran-4-acetic acid, 3-ethylidene-2-( $\beta$ -D-glucopyranosyloxy)-3,4-dihydro-5-(methoxycarbonyl)-, 2-(3,4-dihydroxyphenyl)ethyl ester, (2S,3E,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

Double bond geometry as shown.



IT 32619-42-4D, Oleuropeine, derivs.

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

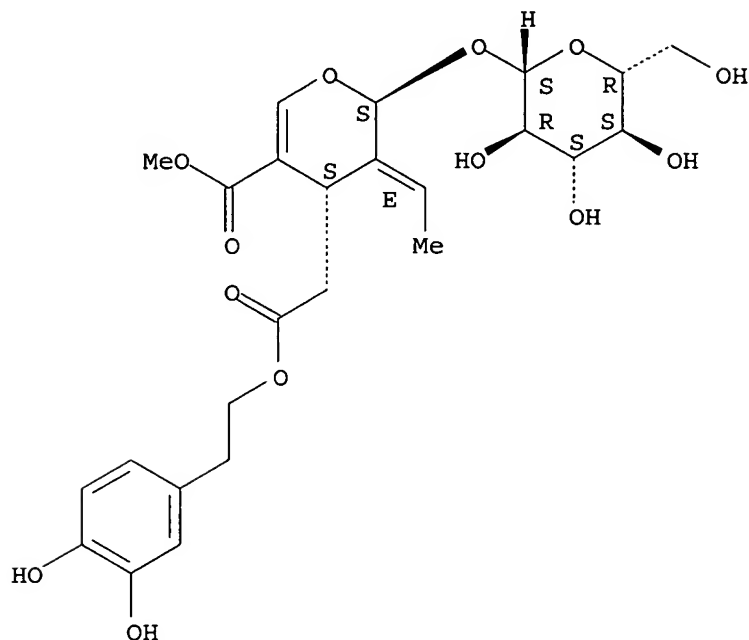
(nutritional or therapeutic composition containing oleuropein compound or one of its derivs.)

RN 32619-42-4 HCAPLUS

CN 2H-Pyran-4-acetic acid, 3-ethylidene-2-( $\beta$ -D-glucopyranosyloxy)-3,4-dihydro-5-(methoxycarbonyl)-, 2-(3,4-dihydroxyphenyl)ethyl ester,

(2S,3E,4S) - (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).  
Double bond geometry as shown.



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 12 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:941581 HCAPLUS

DOCUMENT NUMBER: 142:163

TITLE: An ex-vivo angiogenesis assay as a screening method for natural compounds and herbal drug preparations

AUTHOR(S): Baronikova, Slavka; Apers, Sandra; Vanden Berghe, Dirk; Cos, Paul; Vermeulen, Peter; Van Daele, Andre; Pieters, Luc; Van Marck, Eric; Vlietinck, Arnold

CORPORATE SOURCE: Department of Pharmaceutical Sciences, University of Antwerp, Antwerp, Belg.

SOURCE: Planta Medica (2004), 70(10), 887-892

CODEN: PLMEAA; ISSN: 0032-0943

PUBLISHER: Georg Thieme Verlag

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Angiogenesis is a fundamental component of complex biol. processes, including oncogenesis. The aim of this work was to optimize and validate an ex-vivo angiogenesis assay as a quant. (PC image) biol. method for testing promising natural compds. and herbal drug prepns. for their pro-/anti-angiogenic activity. The bioassay is based on the principle of wound healing and quantifies the effect of angiogenic agents on neovessel outgrowth of human placental vessels embedded in a 3-dimensional fibrin matrix. The assay was validated by known, well characterized pro- and anti-angiogenic effectors (basic fibroblast growth factor and

carboxyamidotriazole, resp.), and an angiogenesis inhibitor of plant origin (green tea leaves extract) was used as a reference product to demonstrate

the applicability of the assay for plant exts. Other standardized plant exts. prepared from olive tree leaves and horse chestnut seeds were tested for their angiogenic potential, but showed only slight inhibitory or no activity, resp. The results presented here indicate that this human ex-vivo angiogenic assay is "ready to use" for screening of herbal drug preps. and pure compds.

IT 32619-42-4, Oleuropein

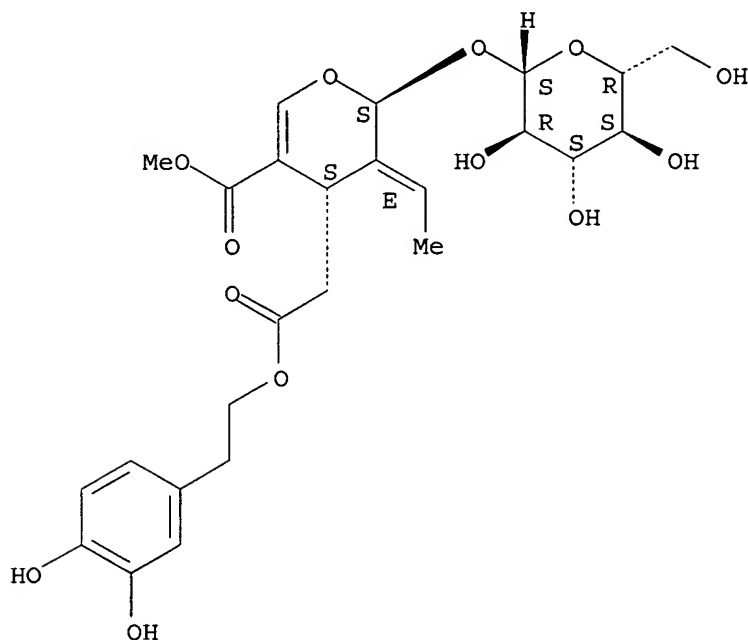
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(an ex-vivo angiogenesis assay as a screening method for natural compds. and herbal drug preps.)

RN 32619-42-4 HCAPLUS

CN 2H-Pyran-4-acetic acid, 3-ethylidene-2-( $\beta$ -D-glucopyranosyloxy)-3,4-dihydro-5-(methoxycarbonyl)-, 2-(3,4-dihydroxyphenyl)ethyl ester, (2S,3E,4S) - (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).  
Double bond geometry as shown.



REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 13 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:796464 HCAPLUS

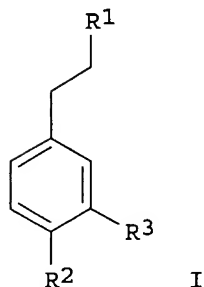
DOCUMENT NUMBER: 139:286369

TITLE: Natural phenolic products and derivatives thereof for protection against neurodegenerative diseases

INVENTOR(S): Geerlings, Arjan; Lopez-Huertas, Leon Eduardo; Morales Sanchez, Juan-Carlos; Boza Puerta, Julio; Jimenez

PATENT ASSIGNEE(S): Lopez, Jesus  
 SOURCE: Puleva Biotech, S.A., Spain  
 PCT Int. Appl., 39 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003082259	A1	20031009	WO 2002-EP3675	20020403
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2480987	AA	20031009	CA 2002-2480987	20020403
AU 2002302489	A1	20031013	AU 2002-302489	20020403
EP 1494658	A1	20050112	EP 2002-730093	20020403
EP 1494658	B1	20060104		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2005531523	T2	20051020	JP 2003-579797	20020403
AT 314841	E	20060215	AT 2002-730093	20020403
US 2003236202	A1	20031225	US 2003-406791	20030403
PRIORITY APPLN. INFO.:			EP 2002-730093	A 20020403
			WO 2002-EP3675	W 20020403
OTHER SOURCE(S):		MARPAT 139:286369		
GI				



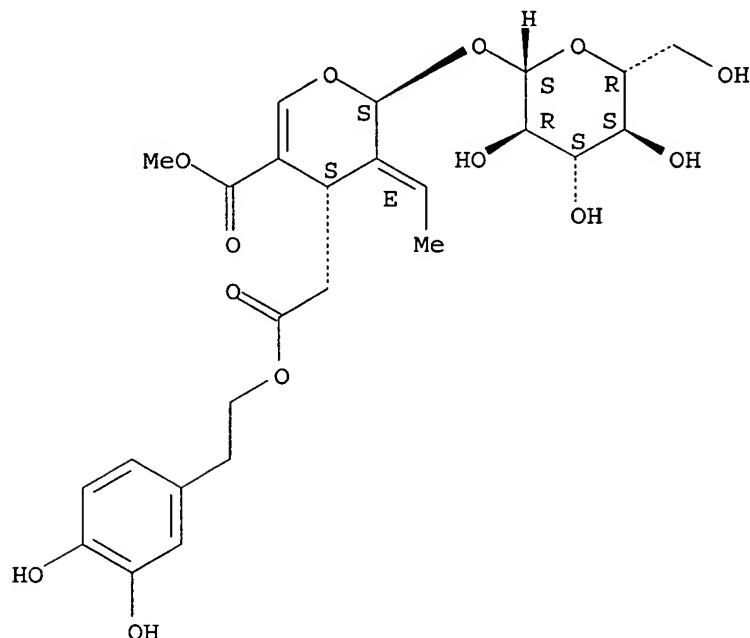
AB The invention discloses the use of phenolic compds. and derivs. I [R1, R2 = OH, OCO(C2-22 alkyl), OCO (C2-22 alkenyl); R3 = H, OH, OCO(C2-22 alkyl), OCO (C2-22 alkenyl)] for protector against neurodegenerative diseases, as well as components containing these compds. and some novel phenolic compds. Compds. of the invention include hydroxytyrosol and hydroxytyrosol derivs., e.g. 2-(3,4-dihydroxyphenyl) Et acetate (preparation given).  
 IT 32619-42-4, Oleuropein  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(neuroprotective natural phenolic products and derivs., preps.,  
compns., and use for the treatment of neurodegenerative diseases)

RN 32619-42-4 HCAPLUS

CN 2H-Pyran-4-acetic acid, 3-ethylidene-2-( $\beta$ -D-glucopyranosyloxy)-3,4-  
dihydro-5-(methoxycarbonyl)-, 2-(3,4-dihydroxyphenyl)ethyl ester,  
(2S,3E,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).  
Double bond geometry as shown.



REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 14 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:905744 HCAPLUS

DOCUMENT NUMBER: 137:380057

TITLE: Methods for inhibiting angiogenesis using oleuropein  
and its hydrolysis products

INVENTOR(S): Hamdi, Hamdi K.; Tavis, Jeffrey H.; Castellon, Raquel

PATENT ASSIGNEE(S): USA

SOURCE: PCT Int. Appl., 54 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002094193	A1	20021128	WO 2002-US16191	20020522
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,				

GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,  
 LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,  
 PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,  
 UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,  
 CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,  
 BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  
 CA 2447231 AA 20021128 CA 2002-2447231 20020522  
 EP 1397105 A1 20040317 EP 2002-739332 20020522  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR  
 BR 2002009922 A 20040727 BR 2002-9922 20020522  
 CN 1531435 A 20040922 CN 2002-812125 20020522  
 JP 2005508856 T2 20050407 JP 2002-590914 20020522  
 ZA 2003008763 A 20040526 ZA 2003-8763 20031111  
 PRIORITY APPLN. INFO.: US 2001-292947P P 20010523  
 WO 2002-US16191 W 20020522

OTHER SOURCE(S): MARPAT 137:380057

AB Methods for inhibiting angiogenesis comprise administering oleuropein and/or the products of its hydrolysis in therapeutically effective amts. The methods and compns. of the present invention are particularly effective in inhibiting the vascularization of endothelial cells, and may be utilized to treat a wide variety of **cancers**, ocular diseases, and inflammatory conditions. For example, anti-angiogenic properties of oleuropein in the adult mouse ear model were illustrated. Oleuropein potentially inhibited existing blood vessels from sprouting. The burn area is in fact devoid of blood vessels.

IT 31773-95-2, Oleuropein aglycone 32619-42-4, Oleuropein 476196-79-9

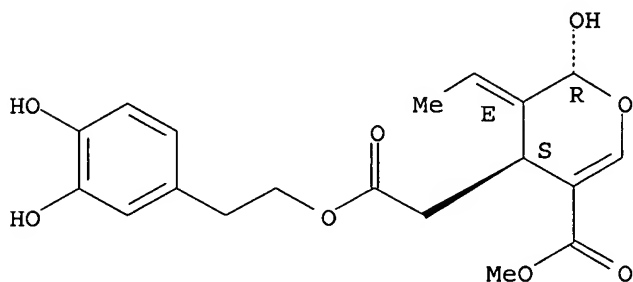
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(inhibition of angiogenesis by oleuropein and its hydrolysis products)

RN 31773-95-2 HCAPLUS

CN 2H-Pyran-4-acetic acid, 3-ethylidene-3,4-dihydro-2-hydroxy-5-(methoxycarbonyl)-, 2-(3,4-dihydroxyphenyl)ethyl ester, (2R,3E,4S)- (9CI) (CA INDEX NAME)

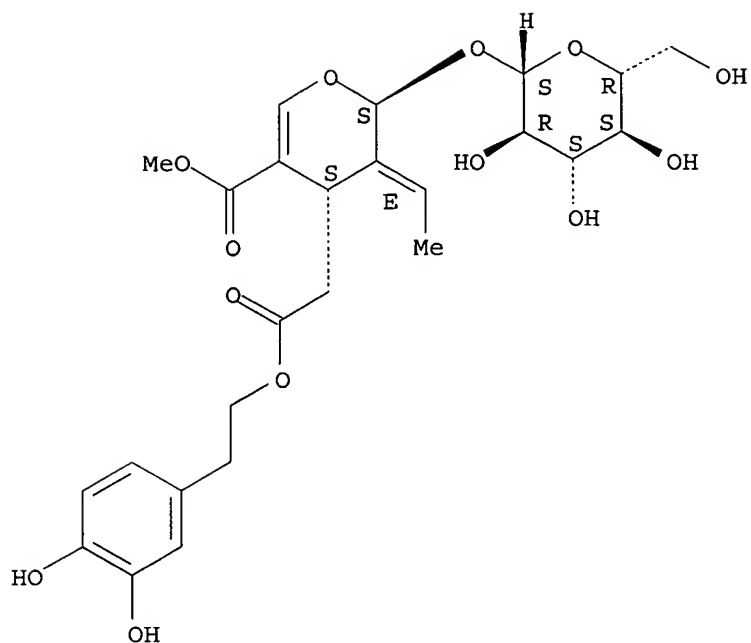
Absolute stereochemistry.  
 Double bond geometry as shown.



RN 32619-42-4 HCAPLUS

CN 2H-Pyran-4-acetic acid, 3-ethylidene-2-(β-D-glucopyranosyloxy)-3,4-dihydro-5-(methoxycarbonyl)-, 2-(3,4-dihydroxyphenyl)ethyl ester, (2S,3E,4S)- (9CI) (CA INDEX NAME)

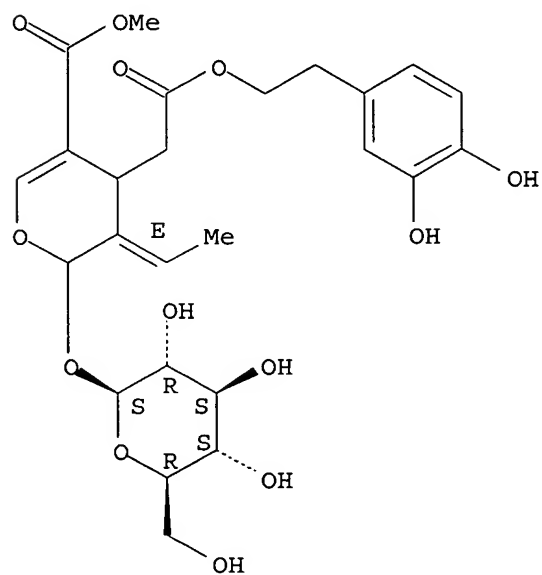
Absolute stereochemistry. Rotation (-).  
 Double bond geometry as shown.



RN 476196-79-9 HCAPLUS

CN 2H-Pyran-4-acetic acid, 3-ethylidene-2-(β-D-glucopyranosyloxy)-3,4-dihydro-5-(methoxycarbonyl)-, 2-(3,4-dihydroxyphenyl)ethyl ester, (3E)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry as shown.



REFERENCE COUNT:

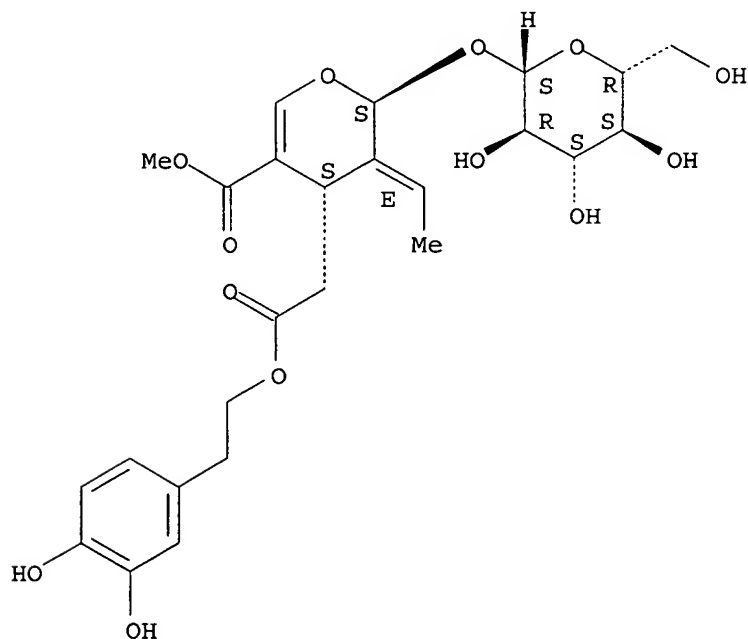
5

THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 15 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2000:319686 HCAPLUS  
 DOCUMENT NUMBER: 132:339119  
 TITLE: Polyphenols: simple structures with high potential  
 AUTHOR(S): Metz, Gunter  
 CORPORATE SOURCE: Blaubeuren, 89143, Germany  
 SOURCE: Pharmazeutische Zeitung (2000), 145(16),  
 1273-1275,1278  
 CODEN: PHZIAP; ISSN: 0031-7136  
 PUBLISHER: Govi-Verlag Pharmazeutischer Verlag  
 DOCUMENT TYPE: Journal; General Review  
 LANGUAGE: German  
 AB A review with 6 refs. is given on the medicinal effects of polyphenols  
 (e.g. anticarcinogen, antioxidative) including phenolic acids, cumarins  
 and furocumarins, propolis, ingredients in olive oil, and ACA.  
 IT 32619-42-4, Oleuropein  
 RL: BAC (Biological activity or effector, except adverse); BOC  
 (Biological occurrence); BSU (Biological study, unclassified); THU  
 (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES  
 (Uses)  
 (medicinal effects of polyphenols)  
 RN 32619-42-4 HCAPLUS  
 CN 2H-Pyran-4-acetic acid, 3-ethylidene-2-( $\beta$ -D-glucopyranosyloxy)-3,4-  
 dihydro-5-(methoxycarbonyl)-, 2-(3,4-dihydroxyphenyl)ethyl ester,  
 (2S,3E,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).  
 Double bond geometry as shown.



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 16 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:454807 HCAPLUS

DOCUMENT NUMBER: 133:344249

TITLE: The antioxidant/**anticancer** potential of phenolic compounds isolated from olive oil

AUTHOR(S): Owen, R. W.; Giacosa, A.; Hull, W. E.; Haubner, R.; Spiegelhalder, B.; Bartsch, H.

CORPORATE SOURCE: Division of Toxicology and Cancer Risk Factors, German Cancer Research Centre, Heidelberg, D-69120, Germany

SOURCE: European Journal of Cancer (2000), 36(10), 1235-1247

CODEN: EJCAEL; ISSN: 0959-8049

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB In our ongoing studies on the chemoprevention of **cancer** we have a particular interest in the health benefits of the Mediterranean diet, of which olive oil is a major component. Recent studies have shown that extravirgin olive oil contains an abundance of phenolic antioxidants including simple phenols (hydroxytyrosol, tyrosol), aldehydic secoiridoids, flavonoids and lignans (acetoxypinoresinol, pinoresinol). All of these phenolic substances are potent inhibitors of reactive oxygen species attack on, e.g., salicylic acid, 2-deoxyguanosine. Currently there is growing evidence that reactive oxygen species are involved in the etiol. of fat-related **neoplasms** such as **cancer** of the breast and colorectum. A plausible mechanism is a high intake of  $\omega$ -6 polyunsatd. fatty acids which are especially prone to lipid peroxidn. initiated and propagated by reactive oxygen species, leading to the formation (via  $\alpha,\beta$ -unsatd. aldehydes such as trans-4-hydroxy-2-nonenal) of highly pro-mutagenic exocyclic DNA adducts. Previous studies have shown that the colonic mucosa of **cancer** patients and those suffering from predisposing inflammatory conditions such as ulcerative colitis and Crohn's disease generates appreciably higher quantities of reactive oxygen species compared with normal tissue. We have extended these studies by developing accurate high performance liquid chromatog. (HPLC) methods for the quantitation of reactive oxygen species generated by the fecal matrix. The data shows that the fecal matrix supports the generation of reactive oxygen species in abundance. As yet, there is a dearth of evidence linking this capacity to actual components of the diet which may influence the colorectal milieu. However, using the newly developed methodol. we can demonstrate that the antioxidant phenolic compds. present in olive oil are potent inhibitors of free radical generation by the fecal matrix. This indicates that the study of the inter-relation between reactive oxygen species and dietary antioxidants is an area of great promise for elucidating mechanisms of colorectal carcinogenesis and possible future chemopreventive strategies.

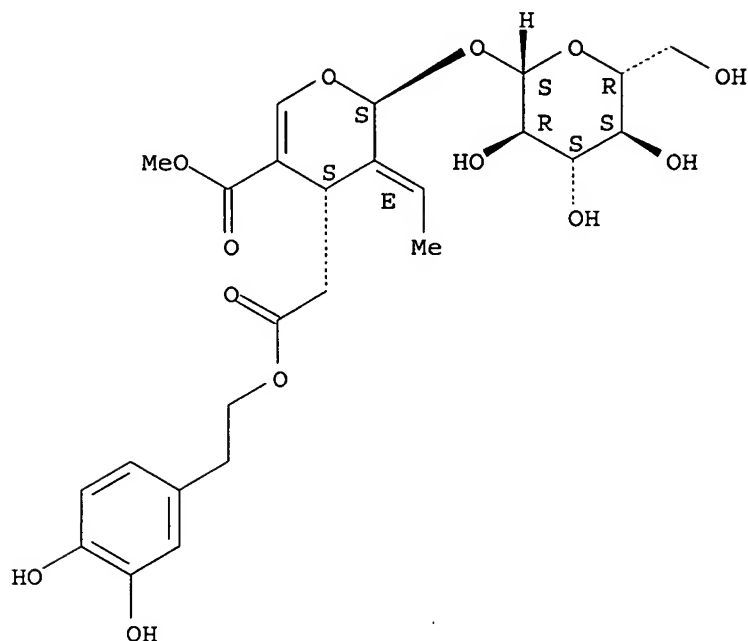
IT 32619-42-4P

RL: ANT (Analyte); BAC (Biological activity or effector, except **adverse**); BSU (Biological study, unclassified); PUR (Purification or recovery); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(antioxidant/**anticancer** potential of phenolic compds. isolated from olive oil)

RN 32619-42-4 HCAPLUS

CN 2H-Pyran-4-acetic acid, 3-ethylidene-2-( $\beta$ -D-glucopyranosyloxy)-3,4-dihydro-5-(methoxycarbonyl)-, 2-(3,4-dihydroxyphenyl)ethyl ester, (2S,3E,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).  
Double bond geometry as shown.



REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 17 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:487644 HCAPLUS

DOCUMENT NUMBER: 133:192309

TITLE: Identification of lignans as major components in the phenolic fraction of olive oil

AUTHOR(S): Owen, Robert W.; Mier, Walter; Giacosa, Attilio; Hull, William E.; Spiegelhalder, Bertold; Bartsch, Helmut

CORPORATE SOURCE: Division of Toxicology and Cancer Risk Factors, German Cancer Research Center, Heidelberg, D-69120, Germany

SOURCE: Clinical Chemistry (Washington, D. C.) (2000), 46(7), 976-988

CODEN: CLCHAU; ISSN: 0009-9147

PUBLISHER: American Association for Clinical Chemistry

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The major phenolic antioxidants in extra virgin olive oil were isolated and purified. Structural anal. was conducted using several spectroscopic techniques, including mass spectrometry and NMR. In particular, detailed <sup>1</sup>H and <sup>13</sup>C NMR data are presented, and several assignment errors in the literature are corrected. The lignans (+)-1-acetoxypinoresinol and (+)-pinoresinol are major components of the phenolic fraction of olive oils. These lignans, which are potent antioxidants, are absent in seed oils and absent in refined virgin oils, but are present at concns. of up to 100 mg/kg (mean ± SE, 41.53 ± 3.93 mg/kg; range, 0.65-99.97 mg/kg) in extra virgin oils. As with the simple phenols and secoiridoids, there is considerable interoil variation in lignan concns. Foods containing

high amts. of lignan precursors have been found to be protective against breast, colon, and prostate **cancer**. Lignans, as natural components of the diet, may be important modulators of **cancer** chemopreventive activity.

IT 31773-95-2 32619-42-4, Oleuropein

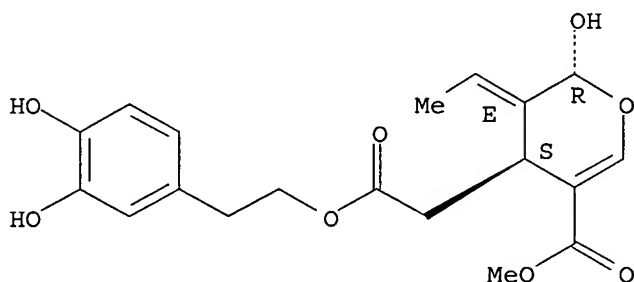
RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(lignan components in the phenolic fraction of olive oil)

RN 31773-95-2 HCAPLUS

CN 2H-Pyran-4-acetic acid, 3-ethylidene-3,4-dihydro-2-hydroxy-5-(methoxycarbonyl)-, 2-(3,4-dihydroxyphenyl)ethyl ester, (2R,3E,4S)- (9CI) (CA INDEX NAME)

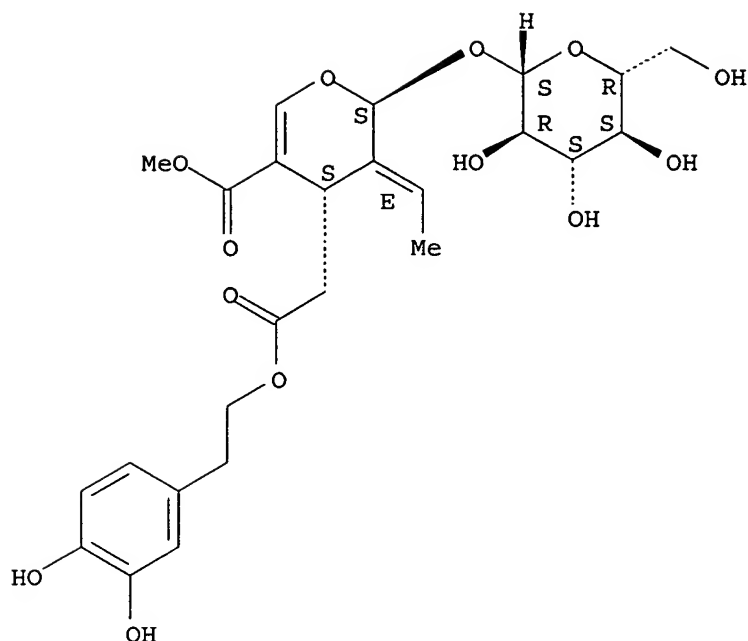
Absolute stereochemistry.  
Double bond geometry as shown.



RN 32619-42-4 HCAPLUS

CN 2H-Pyran-4-acetic acid, 3-ethylidene-2-( $\beta$ -D-glucopyranosyloxy)-3,4-dihydro-5-(methoxycarbonyl)-, 2-(3,4-dihydroxyphenyl)ethyl ester, (2S,3E,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).  
Double bond geometry as shown.



REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 18 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:155024 HCAPLUS

DOCUMENT NUMBER: 134:310130

TITLE: Olive-oil consumption and health: the possible role of antioxidants

AUTHOR(S): Owen, Robert W.; Giacosa, Attilio; Hull, William E.; Haubner, Roswitha; Wurtele, Gerd; Spiegelhalter, Bertold; Bartsch, Helmut

CORPORATE SOURCE: Division of Toxicology and Cancer Risk Factors, German Cancer Research Center, Heidelberg, D-69120, Germany

SOURCE: Lancet Oncology (2000), 1(Oct.), 107-112

CODEN: LOANBN; ISSN: 1470-2045

PUBLISHER: Lancet Publishing Group

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB A review with 35 refs. In the Mediterranean basin, olive oil, along with fruits, vegetables, and fish, is an important constituent of the diet, and is considered a major factor in preserving a healthy and relatively disease-free population. Epidemiol. data show that the Mediterranean diet has significant protective effects against **cancer** and coronary heart disease. We present evidence that it is the unique profile of the phenolic fraction, along with high intakes of squalene and the monounsaturated fatty acid, oleic acid, which confer its health-promoting properties. The major phenolic compounds identified and quantified in olive oil belong to three different classes: simple phenols (hydroxytyrosol, tyrosol); secoiridoids (oleuropein, the aglycon of ligstroside, and their respective decarboxylated dialdehyde derivatives); and the lignans [(+)-1-acetoxypinoresinol and (+)-pinoresinol]. All three classes have potent antioxidant properties. High consumption of extra-virgin olive oils, which are particularly rich in these phenolic antioxidants (as well as squalene and oleic acid), should afford considerable protection against

cancer (colon, breast, skin), coronary heart disease, and ageing by inhibiting oxidative stress.

IT 32619-42-4, Oleuropein

RL: BAC (Biological activity or effector, except adverse); BSU

(Biological study, unclassified); BIOL (Biological study)

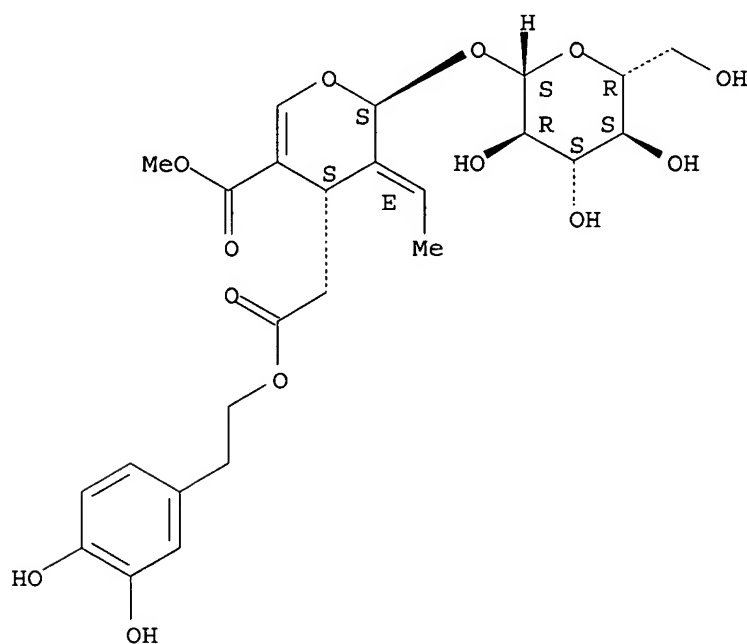
(Olive-oil consumption and health in relation to the possible role of antioxidants)

RN 32619-42-4 HCAPLUS

CN 2H-Pyran-4-acetic acid, 3-ethylidene-2-( $\beta$ -D-glucopyranosyloxy)-3,4-dihydro-5-(methoxycarbonyl)-, 2-(3,4-dihydroxyphenyl)ethyl ester, (2S,3E,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

Double bond geometry as shown.



REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 19 OF 47 MEDLINE on STN DUPLICATE 5  
ACCESSION NUMBER: 2003067119 MEDLINE  
DOCUMENT NUMBER: PubMed ID: 12535851  
TITLE: Simultaneous determination of oleuropein and hydroxytyrosol in rat plasma using liquid chromatography with fluorescence detection.  
AUTHOR: Tan Hai-Wei; Tuck Kellie L; Stupans Ieva; Hayball Peter J  
CORPORATE SOURCE: Centre for Pharmaceutical Research, School of Pharmaceutical, Molecular and Biomedical Sciences, University of South Australia, Adelaide, 5000, Australia.  
SOURCE: Journal of chromatography. B, Analytical technologies in

the biomedical and life sciences, (2003 Feb 25) Vol. 785,  
No. 1, pp. 187-91.

Journal code: 101139554. ISSN: 1570-0232.

PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200307  
ENTRY DATE: Entered STN: 20030212  
Last Updated on STN: 20030801  
Entered Medline: 20030731

AB Oleuropein, the main glycoside present in olives, and hydroxytyrosol, the principal degradation product of oleuropein present in olive oil, have been linked to reduction of coronary heart disease and certain cancers. In the present study a direct and sensitive reversed-phase high-performance liquid chromatographic assay was developed for simultaneous quantification of both oleuropein and hydroxytyrosol. The plasma protein was precipitated with acetonitrile, samples were then centrifuged and supernatants were dried, and reconstituted with water prior to injection. The chromatographic analysis was carried out using a phenyl column and an isocratic elution of acidified water and acetonitrile with fluorescence detection at 281 and 316 nm for excitation and emission, respectively. The calibration curve was linear and limits of quantification were 30 ng/ml and 3 microg/ml for hydroxytyrosol and oleuropein, respectively. The method has been successfully applied to monitor oleuropein and hydroxytyrosol plasma levels in the rat.

CT Animals

Calibration

\*Chromatography, High Pressure Liquid: MT, methods

\*Phenylethyl Alcohol: AA, analogs & derivatives

\*Phenylethyl Alcohol: BL, blood

\*Pyrans: BL, blood

Rats

Sensitivity and Specificity

\*Spectrometry, Fluorescence: MT, methods

RN 10597-60-1 (3,4-dihydroxyphenylethanol); 32619-42-4 (oleuropein)  
; 60-12-8 (Phenylethyl Alcohol)

CN 0 (Pyrans)

L18 ANSWER 20 OF 47

MEDLINE on STN

DUPLICATE 9

ACCESSION NUMBER: 2001098429 MEDLINE

DOCUMENT NUMBER: PubMed ID: 11110859

TITLE: Oleuropein, an antioxidant polyphenol from olive oil, is poorly absorbed from isolated perfused rat intestine.

AUTHOR: Edgecombe S C; Stretch G L; Hayball P J

CORPORATE SOURCE: Centre for Pharmaceutical Research, University of South Australia, North Terrace, Adelaide, South Australia, 5000, Australia.

SOURCE: The Journal of nutrition, (2000 Dec) Vol. 130, No. 12, pp. 2996-3002.

Journal code: 0404243. ISSN: 0022-3166.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200102

ENTRY DATE: Entered STN: 20010322

Last Updated on STN: 20010322

Entered Medline: 20010201

AB Epidemiological studies have shown that the incidence of heart disease and certain cancers is lower in the Mediterranean region. This has been attributed to the high consumption of olive oil in the Mediterranean diet, which contains polyphenolic compounds with antioxidant activity. Although many in vitro studies have been performed to elucidate mechanisms by which these compounds may act, there are virtually no data relating to their fate after ingestion. Therefore, we decided to investigate the intestinal absorption of one of the major olive oil polyphenolics, oleuropein. To do this, a novel in situ intestinal perfusion technique was developed, and the absorption of oleuropein was studied under both iso-osmotic and hypotonic luminal conditions. Oleuropein was absorbed, with an apparent permeability coefficient ( $P_{app}$ ) of  $1.47 \pm 0.13 \times 10^{-6}$  cm/s ( $\pm$  SE) observed under iso-osmotic conditions. The mechanism of absorption is unclear but may involve transcellular transport (SGLT1) or paracellular movement. Under hypotonic conditions, the permeability of oleuropein was significantly greater ( $5.92 \pm 0.49 \times 10^{-6}$  cm/s,  $P < 0.001$ ). This increase is thought to be due to an increase in paracellular movement facilitated by the opening of paracellular junctions in response to hypotonicity. Overall, we determined that the olive oil polyphenolic oleuropein can be absorbed, albeit poorly, from isolated perfused rat intestine. Therefore, it is possible that it or its metabolites may confer a positive health benefit after the consumption of olive oil, most likely via an antioxidant mechanism.

CT Animals

\*Antioxidants: TU, therapeutic use

Biological Availability

\*Flavonoids

Hypotonic Solutions

\*Intestinal Absorption

Membrane Glycoproteins: PH, physiology

Models, Animal

Monosaccharide Transport Proteins: PH, physiology

Permeability

Phenols: CH, chemistry

\*Phenols: PK, pharmacokinetics

Plant Oils: AN, analysis

Plant Oils: ME, metabolism

\*Plant Oils: PK, pharmacokinetics

Polymers: CH, chemistry

\*Polymers: PK, pharmacokinetics

Pyrans: ME, metabolism

\*Pyrans: PK, pharmacokinetics

Rats

Sodium-Glucose Transporter 1

Time Factors

RN 32619-42-4 (oleuropein); 8001-25-0 (olive oil)

CN 0 (Antioxidants); 0 (Flavonoids); 0 (Hypotonic Solutions); 0 (Membrane Glycoproteins); 0 (Monosaccharide Transport Proteins); 0 (Phenols); 0 (Plant Oils); 0 (Polymers); 0 (Pyrans); 0 (Slc5a1 protein, rat); 0 (Sodium-Glucose Transporter 1); 0 (polyphenols)

L18 ANSWER 21 OF 47 MEDLINE on STN

ACCESSION NUMBER: 2004559974 MEDLINE

DOCUMENT NUMBER: PubMed ID: 15487893

TITLE: Acid-induced structural modifications of unsaturated Fatty acids and phenolic olive oil constituents by nitrite ions: a chemical assessment.

AUTHOR: Napolitano Alessandra; Panzella Lucia; Savarese Maria; Sacchi Raffaele; Giudicianni Italo; Paolillo Livio;

CORPORATE SOURCE: d'Ischia Marco  
Department of Organic Chemistry and Biochemistry,  
University of Naples Federico II, Via Cinthia 4, I-80126  
Naples, Italy.. alesnapo@unina.it

SOURCE: Chemical research in toxicology, (2004 Oct) Vol. 17, No.  
10, pp. 1329-37.  
Journal code: 8807448. ISSN: 0893-228X.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200503

ENTRY DATE: Entered STN: 20041110  
Last Updated on STN: 20050330  
Entered Medline: 20050329

AB The structural modifications of the unsaturated fatty acid components of triglycerides in extra virgin olive oil (EVOO) following exposure to nitrite ions in acidic media were determined by two-dimensional (2D) NMR spectroscopy, aided by (15)N labeling and GC analysis, allowing investigation of the matrix without fractionation steps. In the presence of excess nitrite ions in a 1% sulfuric acid/oil biphasic system, extensive double bond isomerization of the oleic/linoleic acid components of triglycerides was observed associated with nitration/oxidation processes. Structurally modified species were identified as E/Z-nitroalkene, 1,2-nitrohydroxy, and 3-nitro-1-alkene(1,5-diene) derivatives based on (1)H, (13)C, and (15)N 2D NMR analysis in comparison with model compounds. Minor constituents of EVOO, including phenolic compounds and tocopherols, were also substantially modified by nitrite-derived nitrating species, even under milder reaction conditions relevant to those occurring in the gastric compartments. Novel nitrated derivatives of tyrosol, hydroxytyrosol, and oleuropein (6-8) were identified by LC/MS analysis of the polar fraction of EVOO and by comparison with synthetic samples. Overall, these results provide the first systematic description at the chemical level of the consequences of exposing EVOO to nitrite ions at acidic pH and offer an improved basis for further investigations in the field of toxic nitrosation/nitration reactions and dietary antinitrosating agents.

CT \*Acids: CH, chemistry  
Acids: ME, metabolism  
Alkenes: AN, analysis  
Antineoplastic Agents: CH, chemistry  
\*Fatty Acids, Unsaturated: CH, chemistry  
Fatty Acids, Unsaturated: ME, metabolism  
Hydrogen-Ion Concentration  
Ions  
Isomerism  
Magnetic Resonance Spectroscopy  
Mass Fragmentography  
\*Nitrites: CH, chemistry  
Nitrites: ME, metabolism  
Nitrites: TO, toxicity  
Nitrosation: DE, drug effects  
\*Phenols: CH, chemistry  
Phenols: ME, metabolism  
\*Phenylethyl Alcohol: AA, analogs & derivatives  
Phenylethyl Alcohol: AN, analysis  
\*Plant Oils: CH, chemistry  
Pyrans: AN, analysis  
Research Support, Non-U.S. Gov't

RN 10597-60-1 (3,4-dihydroxyphenylethanol); 32619-42-4 (oleuropein);  
 ; 501-94-0 (4-hydroxyphenylethanol); 60-12-8 (Phenylethyl Alcohol);  
 8001-25-0 (olive oil)  
 CN 0 (Acids); 0 (Alkenes); 0 (Antineoplastic Agents); 0 (Fatty  
 Acids, Unsaturated); 0 (Ions); 0 (Nitrites); 0 (Phenols); 0 (Plant Oils);  
 0 (Pyrans)

L18 ANSWER 22 OF 47 MEDLINE on STN  
 ACCESSION NUMBER: 1998456830 MEDLINE  
 DOCUMENT NUMBER: PubMed ID: 9786644  
 TITLE: Cytostatic activity of some compounds from the  
 unsaponifiable fraction obtained from virgin olive oil.  
 AUTHOR: Saenz M T; Garcia M D; Ahumada M C; Ruiz V  
 CORPORATE SOURCE: Laboratori do Farmacognosia, Universidad de Sevilla, 41012  
 Seville, Spain.  
 SOURCE: Farmaco (Societa chimica italiana : 1989), (1998 Jun 30)  
 Vol. 53, No. 6, pp. 448-9.  
 Journal code: 8912641. ISSN: 0014-827X.  
 PUB. COUNTRY: Italy  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 199810  
 ENTRY DATE: Entered STN: 19981029  
 Last Updated on STN: 19981029  
 Entered Medline: 19981022

AB Oleuropein, tyrosol, squalene and the fraction of sterols and triterpenoid  
 dialcohols from the unsaponifiable fraction obtained from virgin olive oil  
 have been tested for possible cytostatic activity against McCoy cells,  
 using 6-mercaptopurine as a positive control. The samples of sterols and  
 triterpenic dialcohols showed a strong activity.

CT Antineoplastic Agents, Phytogenic: IP, isolation & purification  
 \*Antineoplastic Agents, Phytogenic: PD, pharmacology  
 Cell Division: DE, drug effects  
 Cell Line  
 Humans  
 Phenylethyl Alcohol: AA, analogs & derivatives  
 Phenylethyl Alcohol: PD, pharmacology  
 \*Plant Oils: CH, chemistry  
 Pyrans: PD, pharmacology  
 Squalene: PD, pharmacology  
 Sterols: PD, pharmacology  
 Triterpenes: PD, pharmacology

RN 111-02-4 (Squalene); 32619-42-4 (oleuropein); 501-94-0  
 (4-hydroxyphenylethanol); 60-12-8 (Phenylethyl Alcohol); 8001-25-0 (olive  
 oil)  
 CN 0 (Antineoplastic Agents, Phytogenic); 0 (Plant Oils); 0  
 (Pyrans); 0 (Sterols); 0 (Triterpenes)

L18 ANSWER 23 OF 47 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights  
 reserved on STN DUPLICATE 2  
 ACCESSION NUMBER: 2005268562 EMBASE  
 TITLE: The phenolic compounds of olive oil: Structure, biological  
 activity and beneficial effects on human health.  
 AUTHOR: Tripoli E.; Giammanco M.; Tabacchi G.; Di Majo D.;  
 Giammanco S.; La Guardia M.  
 CORPORATE SOURCE: Prof. M. Giammanco, Institute of Physiology and Human  
 Nutrition, Faculty of Pharmacy, University of Palermo, Via  
 Augusta Elia 3, 90127, Palermo, Italy. giammanco@unipa.it

SOURCE: Nutrition Research Reviews, (2005) Vol. 18, No. 1, pp.  
 98-112. .  
 Refs: 166  
 ISSN: 0954-4224 CODEN: NREREX  
 COUNTRY: United Kingdom  
 DOCUMENT TYPE: Journal; General Review  
 FILE SEGMENT: 029 Clinical Biochemistry  
 LANGUAGE: English  
 SUMMARY LANGUAGE: English  
 ENTRY DATE: Entered STN: 20050707  
 Last Updated on STN: 20050707

AB The Mediterranean diet is rich in vegetables, cereals, fruit, fish, milk, wine and olive oil and has salutary biological functions. Epidemiological studies have shown a lower incidence of atherosclerosis, cardiovascular diseases and certain kinds of cancer in the Mediterranean area. Olive oil is the main source of fat, and the Mediterranean diet's healthy effects can in particular be attributed not only to the high relationship between unsaturated and saturated fatty acids in olive oil but also to the antioxidant property of its phenolic compounds. The main phenolic compounds, hydroxytyrosol and oleuropein, which give extra-virgin olive oil its bitter, pungent taste, have powerful antioxidant activity both in vivo and in vitro. The present review focuses on recent works analysing the relationship between the structure of olive oil polyphenolic compounds and their antioxidant activity. These compounds' possible beneficial effects are due to their antioxidant activity, which is related to the development of atherosclerosis and cancer, and to anti-inflammatory and antimicrobial activity. .COPYRGT. The Authors 2005.

CT Medical Descriptors:

- \*Mediterranean diet
- \*cardiovascular disease
- \*oxidative stress
- atherosclerosis
- antineoplastic activity
- antioxidant activity
- antiinflammatory activity
- antimicrobial activity
- antiviral activity
- chemical structure
- mass spectrometry
- nuclear magnetic resonance spectroscopy
- high performance liquid chromatography
- degenerative disease
- diabetes mellitus
- rheumatoid arthritis
- inflammatory disease
- thrombocyte aggregation inhibition
- lipid peroxidation
- cell strain CACO 2
- liver microsome
- enzyme activity
- Staphylococcus aureus
- Salmonella enteritidis
- Bacillus cereus
- Klebsiella pneumoniae
- Escherichia coli
- Corynebacterium
- Pseudomonas syringae
- Moraxella catarrhalis
- Haemophilus influenzae

Forsythia  
sesame  
olive tree  
human  
controlled study  
human cell  
review  
Drug Descriptors:  
\*olive oil  
\*phenol derivative  
\*reactive oxygen metabolite: EC, endogenous compound  
antioxidant  
unsaturated fatty acid  
saturated fatty acid  
hydroxytyrosol  
oleuropein  
ligstroside  
10 hydroxyligstroside  
10 hydroxyoleuropein  
tyrosol  
elenolic acid  
secoiridoid  
pinoresinol  
flavonol  
delphinidin  
rutoside  
luteolin 7 glucoside  
anthocyanin  
acteoside  
demethyloleuropein  
nuzhenide  
alpha tocopherol  
1 acetoxypinoresinol  
1 hydroxypinoresinol  
transition element  
copper  
iron  
ascorbic acid  
carotene  
thromboxane B2: EC, endogenous compound  
leukotriene B4: EC, endogenous compound  
nitric oxide: EC, endogenous compound  
endotoxin  
lycopene  
beta carotene  
caffeic acid  
lignan  
polyphenol  
peroxynitrite: EC, endogenous compound  
hydroxymethylglutaryl coenzyme A reductase: EC, endogenous compound  
xanthine oxidase: EC, endogenous compound  
steroid hormone: EC, endogenous compound  
estradiol: EC, endogenous compound  
estrone: EC, endogenous compound  
testosterone: EC, endogenous compound  
androstenedione: EC, endogenous compound  
lipoxygenase: EC, endogenous compound  
enterotoxin  
unclassified drug

RN (olive oil) 8001-25-0; (hydroxytyrosol) 10597-60-1; (oleuropein) 32619-42-4; (tyrosol) 501-94-0; (elenolic acid) 34422-12-3; (pinoresinol) 487-36-5; (flavonol) 577-85-5; (delphinidin) 528-53-0; (rutin) 153-18-4, 22519-99-9; (luteolin 7 glucoside) 5373-11-5; (acteoside) 61276-17-3; (alpha tocopherol) 1406-18-4, 1406-70-8, 52225-20-4, 58-95-7, 59-02-9; (copper) 15158-11-9, 7440-50-8; (iron) 14093-02-8, 53858-86-9, 7439-89-6; (ascorbic acid) 134-03-2, 15421-15-5, 50-81-7; (thromboxane B2) 54397-85-2; (leukotriene B4) 71160-24-2; (nitric oxide) 10102-43-9; (lycopene) 502-65-8; (beta carotene) 7235-40-7; (caffeic acid) 27323-69-9, 331-39-5; (polyphenol) 37331-26-3; (hydroxymethylglutaryl coenzyme A reductase) 37250-24-1; (xanthine oxidase) 9002-17-9; (estradiol) 50-28-2; (estrone) 53-16-7; (testosterone) 58-22-0; (androstenedione) 26264-53-9, 63-05-8; (lipoxigenase) 9027-17-2, 9029-60-1

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ACCESSION NUMBER: 2004272369 EMBASE  
 TITLE: Involvement of oleuropein in (some) digestive metabolic pathways.  
 AUTHOR: Polzonetti V.; Egidi D.; Vita A.; Vincenzetti S.; Natalini P.  
 CORPORATE SOURCE: P. Natalini, Dipto. Sci. Morfologiche B., Univ. degli Studi di Camerino, Via Camerini 2, 62032 Camerino, Italy.  
 SOURCE: Food Chemistry, (2004) Vol. 88, No. 1, pp. 11-15. .  
 Refs: 12  
 ISSN: 0308-8146 CODEN: FOCHDJ  
 PUBLISHER IDENT.: S 0308-8146(04)00054-8  
 COUNTRY: United Kingdom  
 DOCUMENT TYPE: Journal; Article  
 FILE SEGMENT: 029 Clinical Biochemistry  
 LANGUAGE: English  
 SUMMARY LANGUAGE: English  
 ENTRY DATE: Entered STN: 20040715  
 Last Updated on STN: 20040715

AB Olive oil is the principal source of fats in the Mediterranean diet and it has been postulated that the components in olive oil can contribute to a lower incidence of coronary heart disease and cancers (prostate, colon, breast, and skin). The positive effects on human health can be attributed to the high level of phenolic compounds present in olive oil, the major ones being oleuropein, hydroxytyrosol and tyrosol. The aim of the present study was to evaluate the effect of oleuropein on enzymes involved in specific pathways of metabolism of proteins, carbohydrates and lipids. In particular, the effects of oleuropein on enzymes, such as trypsin, pepsin, lipase, glycerol dehydrogenase, glycerol-3-phosphate dehydrogenase, and glycerokinase, were investigated. Results demonstrate that oleuropein is able to activate pepsin and shows an inhibitory effect toward all the other enzymes tested, which suggests a new role for this polyphenol. In addition, a new method for lipase activity assay is presented. .COPYRGHT. 2004 Elsevier Ltd. All rights reserved.

CT Medical Descriptors:  
 \*digestion  
 \*metabolism  
 evaluation  
 enzyme activation  
 enzyme analysis  
 enzyme specificity  
 protein function

protein metabolism  
 carbohydrate metabolism  
 lipid metabolism  
 inhibition kinetics  
 enzyme inhibition  
 enzyme activity  
 article  
 Drug Descriptors:  
 \*oleuropein  
 enzyme  
 protein  
 carbohydrate  
 lipid  
 trypsin  
 pepsin A  
 triacylglycerol lipase  
 glycerol dehydrogenase  
 glycerol 3 phosphate dehydrogenase  
 glycerol kinase

RN (oleuropein) 32619-42-4; (protein) 67254-75-5; (lipid) 66455-18-3; (trypsin) 9002-07-7; (pepsin A) 9001-75-6; (triacylglycerol lipase) 9001-62-1; (glycerol dehydrogenase) 9028-14-2; (glycerol 3 phosphate dehydrogenase) 9001-49-4; (glycerol kinase) 9030-66-4

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ACCESSION NUMBER: 2003171248 EMBASE  
 TITLE: In vitro cytotoxicity to human cells in culture of some phenolics from olive oil.  
 AUTHOR: Babich H.; Visioli F.  
 CORPORATE SOURCE: H. Babich, Department of Biology, Stern College for Women, Yeshiva University, 245 Lexington Avenue, New York, NY 10016, United States. babich@ymail.yu.edu  
 SOURCE: Farmaco, (1 May 2003) Vol. 58, No. 5, pp. 403-407. .  
 Refs: 24  
 ISSN: 0014-827X CODEN: FRMCE8  
 COUNTRY: France  
 DOCUMENT TYPE: Journal; Article  
 FILE SEGMENT: 016 Cancer  
 030 Pharmacology  
 037 Drug Literature Index  
 LANGUAGE: English  
 SUMMARY LANGUAGE: English  
 ENTRY DATE: Entered STN: 20030509  
 Last Updated on STN: 20030509

AB The neutral red in vitro cytotoxicity assay was used to evaluate the comparative responses of human cells isolated from tissues of the oral cavity to olive oil phenolics. The cell lines used included normal gingival fibroblasts, immortalized, **nontumorigenic** gingival epithelial cells, and carcinoma cells from the salivary gland. No differences in the relative sensitivities to the phenolics amongst the three cell types were noted. In general, for all cell types, the sequence of increasing cytotoxicity was: oleuropein aglycone>oleuropein glycoside, caffeic acid>o-coumaric acid>cinnamic acid>tyrosol, syringic acid, protocatechuic acid, vanillic acid. Cytotoxicity was noted only at phenolic concentrations far exceeding those attainable after habitual consumption, thus indicating that consumption of phenol-rich olive oil is safe. .COPYRGT. 2003 Editions scientifiques et medicales Elsevier SAS. All rights reserved.

## CT Medical Descriptors:

\*cell culture  
\*cytotoxicity  
drug effect  
cell isolation  
mouth cavity  
cell line  
gingiva  
fibroblast  
epithelium cell  
carcinoma cell  
salivary gland  
cell type  
drug safety  
concentration response  
human  
human cell  
article

## Drug Descriptors:

\*phenol derivative: CM, drug comparison  
\*phenol derivative: PD, pharmacology  
\*olive oil  
oleuropein: CM, drug comparison  
oleuropein: PD, pharmacology  
oleuropein aglycone: CM, drug comparison  
oleuropein aglycone: PD, pharmacology  
oleuropein glycoside: CM, drug comparison  
oleuropein glycoside: PD, pharmacology  
caffeic acid: CM, drug comparison  
caffeic acid: PD, pharmacology  
coumaric acid: CM, drug comparison  
coumaric acid: PD, pharmacology  
cinnamic acid: CM, drug comparison  
cinnamic acid: PD, pharmacology  
tyrosol: CM, drug comparison  
tyrosol: PD, pharmacology  
syringic acid: CM, drug comparison  
syringic acid: PD, pharmacology  
protocatechuic acid: CM, drug comparison  
protocatechuic acid: PD, pharmacology  
vanillic acid: CM, drug comparison  
vanillic acid: PD, pharmacology  
unclassified drug

RN (olive oil) 8001-25-0; (oleuropein) 32619-42-4; (caffeic acid)  
27323-69-9, 331-39-5; (coumaric acid) 25429-38-3; (cinnamic acid)  
4151-45-5, 538-42-1, 621-82-9; (tyrosol) 501-94-0; (syringic acid)  
530-57-4; (protocatechuic acid) 99-50-3; (vanillic acid) 121-34-6  
CO Fluka (United States); Sigma (United States); Extrasynthese (France)

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ACCESSION NUMBER: 2002419153 EMBASE

TITLE: Major phenolic compounds in olive oil: Metabolism and health effects.

AUTHOR: Tuck K.L.; Hayball P.J.

CORPORATE SOURCE: K.L. Tuck, Centre for Pharmaceutical Research, Sch. Pharma., Molec./Biomed. Sci., University of South Australia, Adelaide, SA 5000, Australia.  
kellie.tuck@unisa.edu.au

SOURCE: Journal of Nutritional Biochemistry, (1 Nov 2002) Vol. 13,  
No. 11, pp. 636-644. .  
Refs: 53  
ISSN: 0955-2863 CODEN: JNBIEL  
PUBLISHER IDENT.: S 0955-2863(02)00229-2  
COUNTRY: United States  
DOCUMENT TYPE: Journal; General Review  
FILE SEGMENT: 029 Clinical Biochemistry  
LANGUAGE: English  
SUMMARY LANGUAGE: English  
ENTRY DATE: Entered STN: 20021205  
Last Updated on STN: 20021205

AB It has been postulated that the components in olive oil in the Mediterranean diet, a diet which is largely vegetarian in nature, can contribute to the lower incidence of coronary heart disease and prostate and colon **cancers**. The Mediterranean diet includes the consumption of large amounts of olive oil. Olive oil is a source of at least 30 phenolic compounds. The major phenolic compounds in olive oil are oleuropein, hydroxytyrosol and tyrosol. Recently there has been a surge in the number of publications that has investigated their biological properties. The phenolic compounds present in olive oil are strong antioxidants and radical scavengers. Olive "waste water" also possesses compounds which are strong antioxidant and radical scavengers. Typically, hydroxytyrosol is a superior antioxidant and radical scavenger to oleuropein and tyrosol. Hydroxytyrosol and oleuropein have antimicrobial activity against ATTC bacterial strains and clinical bacterial strains. Recent syntheses of labeled and unlabelled hydroxytyrosol coupled with superior analytical techniques have enabled its absorption and metabolism to be studied. It has recently been found that hydroxytyrosol is renally excreted unchanged and as the following metabolites as its glucuronide conjugate, sulfate conjugate, homovanillic acid, homovanillic alcohol, 3,4-dihydroxyphenylacetic acid and 3,4-dihydroxyphenylacetaldehyde. Studies with tyrosol have shown that it is excreted unchanged and as its conjugates. This review summarizes the antioxidant abilities; the scavenging abilities and the biological fates of hydroxytyrosol, oleuropein and tyrosol which have been published in recent years.  
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CT Medical Descriptors:  
\*vegetarian diet  
\*metabolism  
Southern Europe  
ischemic heart disease: EP, epidemiology  
incidence  
    **prostate cancer: EP, epidemiology**  
    **colon cancer: EP, epidemiology**  
    **cancer incidence**  
dietary intake  
medical literature  
antimicrobial activity  
bacterial strain  
absorption  
analytic method  
conjugate  
antioxidant activity  
human  
review  
Drug Descriptors:  
\*phenol derivative  
\*olive oil

oleuropein  
 hydroxytyrosol  
 tyrosol  
 antioxidant  
 free radical  
 scavenger  
 glucuronide  
 sulfate  
 homovanillic acid  
 alcohol derivative  
 3,4 dihydroxyphenylacetic acid  
 aldehyde derivative  
 cinnamic acid  
 para coumaric acid  
 elenol

RN (olive oil) 8001-25-0; (oleuropein) 32619-42-4; (hydroxytyrosol)  
 10597-60-1; (tyrosol) 501-94-0; (sulfate) 14808-79-8; (homovanillic acid)  
 306-08-1; (3,4 dihydroxyphenylacetic acid) 102-32-9; (cinnamic acid)  
 4151-45-5, 538-42-1, 621-82-9; (para coumaric acid) 7400-08-0; (elenol)  
 14087-07-1

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ACCESSION NUMBER: 2002321711 EMBASE

TITLE: Olive oil phenolics: Effects on DNA-oxidation and redox  
 enzyme mRNA in prostate cells.

AUTHOR: Lund E.

CORPORATE SOURCE: E. Lund, Institute of Food Research, Norwich Research Park,  
 Colney, Norwich NR4 7UA, United Kingdom

SOURCE: British Journal of Nutrition, (2002) Vol. 88, No. 3, pp.  
 223-224. .

Refs: 18

ISSN: 0007-1145 CODEN: BJNUAV

COUNTRY: United Kingdom

DOCUMENT TYPE: Journal; Note

FILE SEGMENT: 016 Cancer  
 029 Clinical Biochemistry  
 037 Drug Literature Index  
 030 Pharmacology

LANGUAGE: English

ENTRY DATE: Entered STN: 20020926

Last Updated on STN: 20020926

DATA NOT AVAILABLE FOR THIS ACCESSION NUMBER

CT Medical Descriptors:

\*oxidation

human

**prostate cancer**

cardiovascular disease

**colorectal cancer**

**breast cancer**

protection

DNA isolation

antioxidant activity

absorption

atherosclerosis: ET, etiology

DNA damage

cell proliferation

apoptosis

mitochondrial respiration

gene mutation  
signal transduction  
antiinflammatory activity  
cancer risk

note

Drug Descriptors:

\*olive oil: PD, pharmacology

\*phenol derivative: PD, pharmacology

\*messenger RNA: EC, endogenous compound

omega 3 fatty acid

glucosinolate

carotenoid

tocopherol

retinol

caffeic acid

oleuropein

tyrosol

hydroxytyrosol

antioxidant: PD, pharmacology

DNA: EC, endogenous compound

hydrogen peroxide

low density lipoprotein: EC, endogenous compound

iron

copper

2 amino 1 methyl 6 phenylimidazo[4,5 b]pyridine: PD, pharmacology

8 hydroxydeoxyguanosine: PD, pharmacology

glutathione: EC, endogenous compound

RN (olive oil) 8001-25-0; (tocopherol) 1406-66-2; (retinol) 68-26-8,  
82445-97-4; (caffeic acid) 27323-69-9, 331-39-5; (oleuropein)  
32619-42-4; (tyrosol) 501-94-0; (hydroxytyrosol) 10597-60-1; (DNA)  
9007-49-2; (hydrogen peroxide) 7722-84-1; (iron) 14093-02-8, 53858-86-9,  
7439-89-6; (copper) 15158-11-9, 7440-50-8; (2 amino 1 methyl 6  
phenylimidazo[4,5 b]pyridine) 105650-23-5; (glutathione) 70-18-8

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ACCESSION NUMBER: 2005486238 EMBASE

TITLE: Astonishing diversity of natural surfactants: 5.  
Biologically active glycosides of aromatic metabolites.

AUTHOR: Dembitsky V.M.

CORPORATE SOURCE: V.M. Dembitsky, Department of Organic Chemistry, Hebrew  
University, P.O. Box 39231, Jerusalem 91391, Israel.  
dvalery@cc.huji.ac.il

SOURCE: Lipids, (2005) Vol. 40, No. 9, pp. 869-900. .  
Refs: 328

ISSN: 0024-4201 CODEN: LPDSAP

COUNTRY: United States

DOCUMENT TYPE: Journal; General Review

FILE SEGMENT: 030 Pharmacology  
037 Drug Literature Index

LANGUAGE: English

SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 20051128

Last Updated on STN: 20051128

AB This review article presents 342 aromatic glycosides, isolated from and  
identified in plants and microorganisms, that demonstrate different  
biological activities. They are of great interest, especially for the  
medicinal and/or pharmaceutical industries. These biologically active  
natural surfactants are good prospects for the future chemical preparation

of compounds useful as antioxidant, anticancer, antimicrobial, and antibacterial agents. These glycosidic compounds have been classified into several groups, including simple aromatic compounds, stilbenes, phenylethanoids, phenylpropanoids, naphthalene derivatives, and anthracene derivatives. Copyright .COPYRG. 2005 by AOCS Press.

## CT Medical Descriptors:

drug isolation  
plant  
microorganism  
structure activity relation  
dill  
herb  
coriander  
Amomum  
Acer  
drug screening  
IC 50  
drug activity  
drug mechanism  
human  
nonhuman  
review

## Drug Descriptors:

\*surfactant: AN, drug analysis  
\*surfactant: DV, drug development  
\*surfactant: PD, pharmacology  
\*glycoside: AN, drug analysis  
\*glycoside: DV, drug development  
\*glycoside: PD, pharmacology  
\*aromatic compound: AN, drug analysis  
\*aromatic compound: DV, drug development  
\*aromatic compound: PD, pharmacology  
\*drug metabolite: AN, drug analysis  
\*drug metabolite: DV, drug development  
\*drug metabolite: PD, pharmacology  
antioxidant: AN, drug analysis  
antioxidant: DV, drug development  
antioxidant: PD, pharmacology  
    antineoplastic agent: AN, drug analysis  
    antineoplastic agent: DV, drug development  
    antineoplastic agent: PD, pharmacology  
antiinfective agent: AN, drug analysis  
antiinfective agent: DV, drug development  
antiinfective agent: PD, pharmacology  
stilbene derivative: AN, drug analysis  
stilbene derivative: DV, drug development  
stilbene derivative: PD, pharmacology  
naphthalene derivative: AN, drug analysis  
naphthalene derivative: DV, drug development  
naphthalene derivative: PD, pharmacology  
phenylpropionic acid derivative: AN, drug analysis  
phenylpropionic acid derivative: DV, drug development  
phenylpropionic acid derivative: PD, pharmacology  
Salix extract: AN, drug analysis  
Salix extract: DV, drug development  
Salix extract: PD, pharmacology  
herbaceous agent: AN, drug analysis  
herbaceous agent: DV, drug development  
herbaceous agent: PD, pharmacology

Coriandrum sativum extract: AN, drug analysis  
Coriandrum sativum extract: DV, drug development  
Coriandrum sativum extract: PD, pharmacology  
batatasin III: AN, drug analysis  
batatasin III: DV, drug development  
batatasin III: PD, pharmacology  
3' o methylbatatasin III: AN, drug analysis  
3' o methylbatatasin III: DV, drug development  
3' o methylbatatasin III: PD, pharmacology  
tannin derivative: AN, drug analysis  
tannin derivative: DV, drug development  
tannin derivative: PD, pharmacology  
resveratrol: AN, drug analysis  
resveratrol: DV, drug development  
resveratrol: PD, pharmacology  
rhapontigenin: AN, drug analysis  
rhapontigenin: DV, drug development  
rhapontigenin: PD, pharmacology  
isorhapontigenin: AN, drug analysis  
isorhapontigenin: DV, drug development  
isorhapontigenin: PD, pharmacology  
piceatannol: AN, drug analysis  
piceatannol: DV, drug development  
piceatannol: PD, pharmacology  
oleuroside: AN, drug analysis  
oleuroside: DV, drug development  
oleuroside: PD, pharmacology  
hydroxytyrosol: AN, drug analysis  
hydroxytyrosol: DV, drug development  
hydroxytyrosol: PD, pharmacology  
oleuropein: AN, drug analysis  
oleuropein: DV, drug development  
oleuropein: PD, pharmacology  
acteoside: AN, drug analysis  
acteoside: DV, drug development  
acteoside: PD, pharmacology  
ligustalloside A: AN, drug analysis  
ligustalloside A: DV, drug development  
ligustalloside A: PD, pharmacology  
ligustalloside B: AN, drug analysis  
ligustalloside B: DV, drug development  
ligustalloside B: PD, pharmacology  
ligustrosidic acid: AN, drug analysis  
ligustrosidic acid: DV, drug development  
ligustrosidic acid: PD, pharmacology  
oleuropein derivative: AN, drug analysis  
oleuropein derivative: DV, drug development  
oleuropein derivative: PD, pharmacology  
insularoside: AN, drug analysis  
insularoside: DV, drug development  
insularoside: PD, pharmacology  
unindexed drug  
unclassified drug

RN (resveratrol) 501-36-0; (piceatannol) 10083-24-6, 21100-92-5;  
(hydroxytyrosol) 10597-60-1; (oleuropein) 32619-42-4;  
(acteoside) 61276-17-3

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ACCESSION NUMBER: 2005131586 EMBASE  
TITLE: Differential anti-inflammatory effects of phenolic compounds from extra virgin olive oil identified in human whole blood cultures.  
AUTHOR: Miles E.A.; Zoubouli P.; Calder P.C.  
CORPORATE SOURCE: Dr. E.A. Miles, Institute of Human Nutrition, School of Medicine, University of Southampton, Southampton, United Kingdom. eam@soton.ac.uk  
SOURCE: Nutrition, (2005) Vol. 21, No. 3, pp. 389-394. .  
Refs: 28  
ISSN: 0899-9007 CODEN: NUTRER  
COUNTRY: United States  
DOCUMENT TYPE: Journal; Article  
FILE SEGMENT: 026 Immunology, Serology and Transplantation  
029 Clinical Biochemistry  
LANGUAGE: English  
SUMMARY LANGUAGE: English  
ENTRY DATE: Entered STN: 20050407  
Last Updated on STN: 20050407  
AB Objective: The olive oil-rich Mediterranean diet protects against cardiovascular disease, which involves inflammatory processes. This study investigated the effects of phenolic compounds found in extra virgin olive oil on inflammatory mediator production by human mononuclear cells. Methods: Diluted human blood cultures were stimulated with lipopolysaccharide in the presence of phenolics (vanillic, p-coumaric, syringic, homovanillic and caffeic acids, kaempferol, oleuropein glycoside, and tyrosol) at concentrations of 10<sup>-7</sup> to 10<sup>-4</sup> M. Concentrations of the inflammatory cytokines tumor necrosis factor- $\alpha$ , interleukin-1 $\beta$ , and interleukin-6 and of the inflammatory eicosanoid prostaglandin E(2) were measured by enzyme-linked immunosorbent assay. Results: Oleuropein glycoside and caffeic acid decreased the concentration of interleukin-1 $\beta$ . At a concentration of 10<sup>-4</sup> M, oleuropein glycoside inhibited interleukin-1 $\beta$  production by 80%, whereas caffeic acid inhibited production by 40%. Kaempferol decreased the concentration of prostaglandin E(2). At a concentration of 10<sup>-4</sup> M, kaempferol inhibited prostaglandin E(2) production by 95%. No effects were seen on concentrations of interleukin-6 or tumor necrosis factor- $\alpha$  and there were no effects of the other phenolic compounds. Conclusions: Some, but not all, phenolic compounds derived from extra virgin olive oil decrease inflammatory mediator production by human whole blood cultures. This may contribute to the antiatherogenic properties ascribed to extra virgin olive oil. .COPYRGT. 2005 Elsevier Inc. All rights reserved.  
CT Medical Descriptors:  
antiinflammatory activity  
blood culture  
dilution  
simulation  
concentration response  
enzyme linked immunosorbent assay  
cytokine production  
human  
male  
normal human  
controlled study  
human cell  
adult  
article  
priority journal

## Drug Descriptors:

\*olive oil  
 lipopolysaccharide  
 phenol derivative  
 vanillic acid  
 para coumaric acid  
 syringic acid  
 homovanillic acid  
 caffeic acid  
 kaempferol  
 oleuropein  
 glycoside  
 tyrosol  
 cytokine  
 tumor necrosis factor alpha  
 interleukin 1  
 prostaglandin E2  
 interleukin 6

RN (olive oil) 8001-25-0; (vanillic acid) 121-34-6; (para coumaric acid) 7400-08-0; (syringic acid) 530-57-4; (homovanillic acid) 306-08-1; (caffeic acid) 27323-69-9, 331-39-5; (kaempferol) 520-18-3; (oleuropein) 32619-42-4; (tyrosol) 501-94-0; (prostaglandin E2) 363-24-6

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ACCESSION NUMBER: 2005079028 EMBASE  
 TITLE: The antioxidant properties of Greek foods and the flavonoid content of the Mediterranean menu.  
 AUTHOR: Vasilopoulou E.; Georga K.; Joergensen M.B.; Naska A.; Trichopoulou A.  
 CORPORATE SOURCE: A. Trichopoulou, Department of Hygiene/Epidemiology, School of Medicine, Natl./Kapodistrian Univ. of Athens, Mikras Asias 75, Athens 115 27, Greece. antonia@nut.uoa.gr  
 SOURCE: Current Medicinal Chemistry: Immunology, Endocrine and Metabolic Agents, (2005) Vol. 5, No. 1, pp. 33-45. .  
 Refs: 117  
 ISSN: 1568-0134 CODEN: CMCIC8  
 COUNTRY: Netherlands  
 DOCUMENT TYPE: Journal; General Review  
 FILE SEGMENT: 016 Cancer  
 017 Public Health, Social Medicine and Epidemiology  
 018 Cardiovascular Diseases and Cardiovascular Surgery  
 029 Clinical Biochemistry  
 030 Pharmacology  
 037 Drug Literature Index  
 LANGUAGE: English  
 SUMMARY LANGUAGE: English  
 ENTRY DATE: Entered STN: 20050303  
 Last Updated on STN: 20050303

AB The Mediterranean diet is currently attracting interest because of its health benefits that may be due, in part, to the high content of this diet in antioxidant phytochemicals. The variety and amount of phytochemicals taken with the consumption of primary and composite foods of the Mediterranean diet may provide better antiatherogenic properties than single phytochemicals. Flavonoids are the most important group of plant antioxidants. The Mediterranean diet is characterized by high intake of olive oil, fruit, vegetables, cereals, and legumes, some of which are good sources of flavonoids. Flavonoids consist of six principal classes: flavones, flavonols, flavan-3-ols, flavanones, anthocyanidins and

isoflavones. The flavonoid intake from a traditional Greek plant-based weekly menu was calculated and the daily average flavonoid intake was found 118.6 mg/d, of which flavanones contribute 32% (38.5 mg/d), catechins (the most important group of flavan-3-ols) contribute 28% (32.7 mg/d), flavonols 22% (26.4 mg/d), anthocyanidins 9% (11 mg/d), flavones 8% (8.7 mg/d) and isoflavones contribute 1% (1.3 mg/d). Herbs and spices, which are commonly used in the traditional Greek cuisine, although added in small quantities, significantly contribute to the flavonol and flavone intake due to frequent consumption. The Greek version of the Mediterranean diet with its high consumption of fruit and vegetables is characterized by high intake of flavonoids in comparison to diets in northern European countries. .COPYRIGHT. 2005 Bentham Science Publishers Ltd.

CT Medical Descriptors:

\*Mediterranean diet  
antioxidant activity  
food composition  
fruit  
vegetable  
legume  
cereal  
dietary intake  
herb  
spice  
Greece  
Europe  
geography  
heart protection  
ischemic heart disease: PC, prevention  
    **cancer: PC, prevention**  
    **cancer prevention**  
drug potency  
dose response  
    **antineoplastic activity**  
fish  
alcohol consumption  
antiinflammatory activity  
milk  
dairy product  
meat  
human  
nonhuman  
review

Drug Descriptors:

\*flavonoid: PD, pharmacology  
olive oil: PD, pharmacology  
flavone derivative: PD, pharmacology  
flavonol derivative: PD, pharmacology  
flavan derivative: PD, pharmacology  
flavanone derivative: PD, pharmacology  
isoflavone derivative: PD, pharmacology  
catechin: PD, pharmacology  
phenol derivative: DO, drug dose  
phenol derivative: PD, pharmacology  
hydroxytyrosol: DO, drug dose  
hydroxytyrosol: PD, pharmacology  
oleuropein: DO, drug dose  
oleuropein: PD, pharmacology  
anthocyanin: PD, pharmacology

phosphatidylcholine: PD, pharmacology  
 trypsin inhibitor: PD, pharmacology  
 phytoestrogen: PD, pharmacology  
 ferulic acid: PD, pharmacology  
 resveratrol: PD, pharmacology  
 tocopherol: PD, pharmacology  
 ascorbic acid: PD, pharmacology  
 carotenoid: PD, pharmacology  
 polyphenol derivative: PD, pharmacology  
 genistein: PD, pharmacology  
 daidzein: PD, pharmacology  
 tannin derivative: PD, pharmacology  
 phytate: PD, pharmacology  
 alpha tocotrienol: PD, pharmacology  
 lignan: PD, pharmacology  
 epicatechin: PD, pharmacology  
 quercetin: PD, pharmacology  
 unindexed drug

RN (olive oil) 8001-25-0; (catechin) 13392-26-2, 154-23-4; (hydroxytyrosol)  
 10597-60-1; (oleuropein) 32619-42-4; (phosphatidylcholine)  
 55128-59-1, 8002-43-5; (trypsin inhibitor) 9035-81-8; (ferulic acid)  
 1135-24-6, 24276-84-4; (resveratrol) 501-36-0; (tocopherol) 1406-66-2;  
 (ascorbic acid) 134-03-2, 15421-15-5, 50-81-7; (genistein) 446-72-0;  
 (daidzein) 486-66-8; (phytate) 14306-25-3, 7205-52-9; (alpha tocotrienol)  
 1721-51-3; (epicatechin) 490-46-0; (quercetin) 117-39-5

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ACCESSION NUMBER: 2005049849 EMBASE

TITLE: Olive oil and modulation of cell signaling in disease  
 prevention.

AUTHOR: Wahle K.W.J.; Caruso D.; Ochoa J.J.; Quiles J.L.

CORPORATE SOURCE: K.W.J. Wahle, School of Life Sciences, Robert Gordon  
 University, Aberdeen, AB25 1HG, United Kingdom.  
 k.wahle-l@rgu.ac.uk

SOURCE: Lipids, (2004) Vol. 39, No. 12, pp. 1223-1231. .  
 Refs: 86

ISSN: 0024-4201 CODEN: LPDSAP

COUNTRY: United States

DOCUMENT TYPE: Journal; Conference Article

FILE SEGMENT: 029 Clinical Biochemistry

030 Pharmacology

037 Drug Literature Index

LANGUAGE: English

SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 20050210

Last Updated on STN: 20050210

AB Epidemiological studies show that populations consuming a predominantly  
 plant-based Mediterranean-style diet exhibit lower incidences of chronic  
 diseases than those eating a northern European or North American diet.  
 This observation has been attributed to the greater consumption of fruits  
 and vegetables and the lower consumption of animal products, particularly  
 fat. Although total fat intake in Mediterranean populations can be higher  
 than in other regions (ca. 40% of calories), the greater proportion is  
 derived from olive oil and not animals. Increased olive oil consumption  
 is implicated in a reduction in cardiovascular disease, rheumatoid  
 arthritis, and, to a lesser extent, a variety of **cancers**. Olive  
 oil intake also has been shown to modulate immune function, particularly  
 the inflammatory processes associated with the immune system. Olive oil

is a nonoxidative dietary component, and the attenuation of the inflammatory process it elicits could explain its beneficial effects on disease risk since oxidative and inflammatory stresses appear to be underlying factors in the etiology of these diseases in man. The antioxidant effects of olive oil are probably due to a combination of its high oleic acid content (low oxidation potential compared with linoleic acid) and its content of a variety of plant antioxidants, particularly oleuropein, hydroxytyrosol, and tyrosol. It is also possible that the high oleic acid content and a proportionate reduction in linoleic acid intake would allow a greater conversion of  $\alpha$ -linolenic acid (18:3n-3) to longer-chain n-3 PUFA, which have characteristic health benefits. Adoption of a Mediterranean diet could confer health benefits in high-risk populations.

## CT Medical Descriptors:

\*dietary intake

cardiovascular disease: PC, prevention

rheumatoid arthritis: PC, prevention

**cancer prevention**

immunomodulation

inflammation

immune system

risk

oxidative stress

antioxidant activity

Mediterranean diet

nonhuman

conference paper

Drug Descriptors:

\*olive oil: PD, pharmacology

oleic acid

antioxidant

oleuropein

hydroxytyrosol

tyrosol

linoleic acid

omega 3 fatty acid

RN (olive oil) 8001-25-0; (oleic acid) 112-80-1, 115-06-0; (oleuropein) 32619-42-4; (hydroxytyrosol) 10597-60-1; (tyrosol) 501-94-0; (linoleic acid) 1509-85-9, 2197-37-7, 60-33-3, 822-17-3

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ACCESSION NUMBER: 2004355686 EMBASE

TITLE: Olives and olive oil in **cancer** prevention.

AUTHOR: Owen R.W.; Haubner R.; Wurtele G.; Hull W.E.; Spiegelhalder B.; Bartsch H.

CORPORATE SOURCE: R.W. Owen, Div. Toxicol. Cancer Risk Factors, German Cancer Research Center, Im Neuenheimer Feld 280, D-69120 Heidelberg, Germany. R.Owen@DKFZ-Heidelberg.de

SOURCE: European Journal of Cancer Prevention, (2004) Vol. 13, No. 4, pp. 319-326. .

Refs: 28

ISSN: 0959-8278 CODEN: EJUPEK

COUNTRY: United Kingdom

DOCUMENT TYPE: Journal; Article

FILE SEGMENT: 016 Cancer

030 Pharmacology

037 Drug Literature Index

LANGUAGE: English

SUMMARY LANGUAGE: English  
ENTRY DATE: Entered STN: 20040909  
Last Updated on STN: 20040909

AB Epidemiologic studies conducted in the latter part of the twentieth century demonstrate fairly conclusively that the people of the Mediterranean basin enjoy a healthy lifestyle with decreased incidence of degenerative diseases. The data show that populations within Europe that consume the so-called 'Mediterranean diet' have lower incidences of major illnesses such as **cancer** and cardiovascular disease. Studies have suggested that the health-conferring benefits of the Mediterranean diet are due mainly to a high consumption of fibre, fish, fruits and vegetables. More recent research has focused on other important factors such as olives and olive oil. Obviously fibre (especially wholegrain-derived products), fruits and vegetables supply an important source of dietary antioxidants. What is the contribution from olives and olive oil? Apparently the potential is extremely high but epidemiologic studies rarely investigate consumption of these very important products in-depth, perhaps due to a lack of exact information on the types and amounts of antioxidants present. Recent studies have shown that olives and olive oil contain antioxidants in abundance. Olives (especially those that have not been subjected to the Spanish brining process) contain up to 16 g/kg typified by acteosides, hydroxytyrosol, tyrosol and phenyl propionic acids. Olive oil, especially extra virgin, contains smaller amounts of hydroxytyrosol and tyrosol, but also contains secoiridoids and lignans in abundance. Both olives and olive oil contain substantial amounts of other compounds deemed to be **anticancer** agents (e.g. squalene and terpenoids) as well as the peroxidation-resistant lipid oleic acid. It seems probable that olive and olive oil consumption in southern Europe represents an important contribution to the beneficial effects on health of the Mediterranean diet. .COPYRG. 2004 Lippincott Williams & Wilkins.

CT Medical Descriptors:  
    **\*cancer prevention**  
    \*olive  
    lipid peroxidation  
    Europe  
    centrifugation  
    high performance liquid chromatography  
    gas chromatography  
    mass spectrometry  
    nuclear magnetic resonance  
    liquid chromatography  
    electrospray mass spectrometry  
    drug structure  
    IC 50  
    antioxidant activity  
        **cancer incidence**  
    dietary intake  
    oxidative stress  
    DNA adduct  
        **breast cancer**  
        **colorectal cancer**  
        **skin cancer**  
    statistical significance  
    human  
    article  
    priority journal  
Drug Descriptors:  
    \*olive oil: AN, drug analysis

\*olive oil: PD, pharmacology  
 acteoside: AN, drug analysis  
 acteoside: PD, pharmacology  
 hydroxytyrosol: AN, drug analysis  
 hydroxytyrosol: PD, pharmacology  
 propionic acid: AN, drug analysis  
 propionic acid: PD, pharmacology  
 oleic acid: AN, drug analysis  
 oleic acid: PD, pharmacology  
 phenol derivative: AN, drug analysis  
 phenol derivative: PD, pharmacology  
 polyphenol derivative: AN, drug analysis  
 polyphenol derivative: PD, pharmacology  
 secoiridoid: AN, drug analysis  
 secoiridoid: PD, pharmacology  
 lignan derivative: AN, drug analysis  
 lignan derivative: PD, pharmacology  
     **antineoplastic agent: AN, drug analysis**  
     **antineoplastic agent: PD, pharmacology**  
 squalene: AN, drug analysis  
 squalene: PD, pharmacology  
 terpenoid derivative: AN, drug analysis  
 terpenoid derivative: PD, pharmacology  
 oleuropein: AN, drug analysis  
 oleuropein: PD, pharmacology  
 tyrosol: AN, drug analysis  
 tyrosol: PD, pharmacology  
 pinosresinol: AN, drug analysis  
 pinosresinol: PD, pharmacology

RN (olive oil) 8001-25-0; (acteoside) 61276-17-3; (hydroxytyrosol) 10597-60-1; (propionic acid) 72-03-7, 79-09-4; (oleic acid) 112-80-1, 115-06-0; (squalene) 111-02-4, 7683-64-9; (oleuropein) **32619-42-4**; (tyrosol) 501-94-0; (pinosresinol) 487-36-5

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ACCESSION NUMBER: 2004280692 EMBASE  
 TITLE: Natural products and synthetic compounds as immunomodulators.  
 AUTHOR: Kayser O.; Masihi K.N.; Kiderlen A.F.  
 CORPORATE SOURCE: Dr. A.F. Kiderlen, Robert Koch-Institut, Department of Infectious Diseases, Cellular Defense Mechanisms Unit, Nordufer 20, D-13353 Berlin, Germany  
 SOURCE: Expert Review of Anti-Infective Therapy, (2003) Vol. 1, No. 2, pp. 319-335. .  
     Refs: 191  
     ISSN: 1478-7210 CODEN: ERATCK  
 COUNTRY: United Kingdom  
 DOCUMENT TYPE: Journal; General Review  
 FILE SEGMENT: 026 Immunology, Serology and Transplantation  
                 029 Clinical Biochemistry  
                 030 Pharmacology  
                 037 Drug Literature Index  
 LANGUAGE: English  
 SUMMARY LANGUAGE: English  
 ENTRY DATE: Entered STN: 20040722  
                 Last Updated on STN: 20040722

AB Research on immunomodulation by natural products or synthetic derivatives is of key interest for anti-infective therapy for a number of reasons.

Many plant remedies well-known in traditional medicine or refined natural products in clinical use exert their anti-infective effects not only (if at all) by directly affecting the pathogen. At least part of their effect is indirect, by stimulating natural and adaptive defense mechanisms of the host. These findings have now given many empirical therapies a rationale, scientific basis and thereby a means for 'intelligent' improvement. In discovering the molecular mechanisms by which known remedies exert their effects, chosen elements further down the 'chain of command' might be synthesized and applied directly for more rapid and selective cure, omitting unwanted side effects. The direct use of recombinant cytokines, often in combination with antibiotics, is one consequence of this rationale. .COPYRGHT. Future Drugs Ltd. All rights reserved.

## CT Medical Descriptors:

medical research  
immunomodulation  
antibiotic therapy  
medicinal plant  
traditional medicine  
drug use  
antibacterial activity  
immune response  
molecular mechanics  
drug synthesis  
cell stimulation  
macrophage  
cytokine release  
antiviral activity  
lymphocyte proliferation  
enzyme induction  
immunostimulation  
condyloma: DT, drug therapy  
condyloma: ET, etiology  
Wart virus  
basal cell carcinoma: DT, drug therapy  
actinic keratosis: DT, drug therapy  
molluscum contagiosum: DT, drug therapy  
molluscum contagiosum: ET, etiology  
Molluscipoxvirus  
human  
nonhuman  
mouse  
rat  
review

## Drug Descriptors:

\*immunomodulating agent: DV, drug development  
\*immunomodulating agent: DT, drug therapy  
\*immunomodulating agent: PD, pharmacology  
\*immunomodulating agent: TP, topical drug administration  
\*natural product: DV, drug development  
\*natural product: DT, drug therapy  
\*natural product: PD, pharmacology  
\*natural product: TP, topical drug administration  
Echinacea extract: PD, pharmacology  
interleukin 1: EC, endogenous compound  
interleukin 6: EC, endogenous compound  
interleukin 10: EC, endogenous compound  
tumor necrosis factor alpha: EC, endogenous compound  
nitric oxide: EC, endogenous compound  
plant extract: PD, pharmacology

plant extract: IP, intraperitoneal drug administration  
 Antelaea azadirachata: PD, pharmacology  
 Antelaea azadirachata: IP, intraperitoneal drug administration  
 flavonoid: PD, pharmacology  
 resveratrol: PD, pharmacology  
 naringenin: PD, pharmacology  
 arctigenin: PD, pharmacology  
 phenol derivative: PD, pharmacology  
 inducible nitric oxide synthase: EC, endogenous compound  
 lignan: PD, pharmacology  
 tannin: PD, pharmacology  
 coumarin: PD, pharmacology  
 scopoletin: PD, pharmacology  
 oleuropein: PD, pharmacology  
 saponin derivative: PD, pharmacology  
 ginseng saponin: PD, pharmacology  
 bryostatin: PD, pharmacology  
 glycoprotein: PD, pharmacology  
 paclitaxel: PD, pharmacology  
 oligodeoxynucleotide: PD, pharmacology  
 imiquimod: DT, drug therapy  
 imiquimod: TP, topical drug administration  
 inosine phosphate: DT, drug therapy  
 unindexed drug  
 unclassified drug

RN (nitric oxide) 10102-43-9; (resveratrol) 501-36-0; (naringenin) 480-41-1,  
 67604-48-2; (arctigenin) 7770-78-7; (inducible nitric oxide synthase)  
 501433-35-8; (tannin) 1401-55-4; (coumarin) 91-64-5; (scopoletin) 92-61-5;  
 (oleuropein) 32619-42-4; (paclitaxel) 33069-62-4; (imiquimod)  
 99011-02-6; (inosine phosphate) 131-99-7  
 CN (1) Taxol; (2) Aldara  
 CO (1) Bristol Myers Squibb (United States); (2) 3M (United States)

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ACCESSION NUMBER: 2003069313 EMBASE  
 TITLE: Olive-oil consumption and **cancer** risk.  
 AUTHOR: Filik L.; Ozyilkan O.  
 SOURCE: European Journal of Clinical Nutrition, (1 Jan 2003) Vol.  
 57, No. 1, pp. 191. .  
 Refs: 4  
 ISSN: 0954-3007 CODEN: EJCNEQ  
 COUNTRY: United Kingdom  
 DOCUMENT TYPE: Journal; Letter  
 FILE SEGMENT: 016 Cancer  
 017 Public Health, Social Medicine and Epidemiology  
 LANGUAGE: English  
 ENTRY DATE: Entered STN: 20030220  
 Last Updated on STN: 20030220

DATA NOT AVAILABLE FOR THIS ACCESSION NUMBER

CT Medical Descriptors:  
 \*fat intake  
 \***cancer risk**  
 diet  
 Southern Europe  
**cancer prevention**  
 heart protection  
 ischemic heart disease: PC, prevention  
 food composition

aging  
oxidative stress  
cancer incidence  
antioxidant activity  
lipid peroxidation  
public health  
human  
letter  
Drug Descriptors:  
\*olive oil  
phenol derivative  
squalene  
monounsaturated fatty acid  
oleic acid  
antioxidant  
hydroxytyrosol  
tyrosol  
oleuropein  
lignan  
secoiridoid

RN (olive oil) 8001-25-0; (squalene) 111-02-4, 7683-64-9; (oleic acid)  
112-80-1, 115-06-0; (hydroxytyrosol) 10597-60-1; (tyrosol) 501-94-0;  
(oleuropein) 32619-42-4

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ACCESSION NUMBER: 2003243873 EMBASE  
TITLE: UV-induced skin damage.  
AUTHOR: Ichihashi M.; Ueda M.; Budiyanto A.; Bito T.; Oka M.;  
Fukunaga M.; Tsuru K.; Horikawa T.  
CORPORATE SOURCE: M. Ichihashi, Division of Dermatology, Dept. of Clinical  
Molecular Medicine, Kobe Univ. Grad. School of Medicine,  
7-5-1, Kusunoki-cho, Chuo-ku, Kobe 650-0017, Japan.  
ichihash@med.kobe.ac.jp  
SOURCE: Toxicology, (15 Jul 2003) Vol. 189, No. 1-2, pp. 21-39. .  
Refs: 135  
ISSN: 0300-483X CODEN: TXCYAC  
COUNTRY: Ireland  
DOCUMENT TYPE: Journal; General Review  
FILE SEGMENT: 013 Dermatology and Venereology  
016 Cancer  
030 Pharmacology  
037 Drug Literature Index  
052 Toxicology  
LANGUAGE: English  
SUMMARY LANGUAGE: English  
ENTRY DATE: Entered STN: 20030703  
Last Updated on STN: 20030703

AB Solar radiation induces acute and chronic reactions in human and animal  
skin. Chronic repeated exposures are the primary cause of benign and  
malignant skin tumors, including malignant melanoma. Among  
types of solar radiation, ultraviolet B (290-320 nm) radiation is highly  
mutagenic and carcinogenic in animal experiments compared to ultraviolet A  
(320-400 nm) radiation. Epidemiological studies suggest that solar UV  
radiation is responsible for skin tumor development via gene  
mutations and immunosuppression, and possibly for photoaging. In this  
review, recent understanding of DNA damage caused by direct UV radiation  
and by indirect stress via reactive oxygen species (ROS) and DNA repair  
mechanisms, particularly nucleotide excision repair of human cells, are

discussed. In addition, mutations induced by solar UV radiation in p53, ras and patched genes of non-melanoma skin **cancer** cells, and the role of ROS as both a promoter in UV-carcinogenesis and an inducer of UV-apoptosis, are described based primarily on the findings reported during the last decade. Furthermore, the effect of UV on immunological reaction in the skin is discussed. Finally, possible prevention of UV-induced skin **cancer** by feeding or topical use of antioxidants, such as polyphenols, vitamin C, and vitamin E, is discussed. .COPYRGHT. 2003 Published by Elsevier Science Ireland Ltd.

## CT Medical Descriptors:

- \*skin defect
- \*radiation injury
- \*radiation carcinogenesis: EP, epidemiology
- \*radiation carcinogenesis: ET, etiology
- \*skin carcinogenesis: EP, epidemiology
- \*skin carcinogenesis: ET, etiology
- skin manifestation
- radiation exposure
- benign tumor: ET, etiology**
- skin carcinoma: ET, etiology
- melanoma: ET, etiology
- solar radiation
- ultraviolet B radiation
- ultraviolet A radiation
- ultraviolet C radiation
- mutagenesis
- epidemiological data
- gene mutation
- immune deficiency
- aging
- DNA damage
- oxidative stress
- DNA repair
- excision repair
- cancer cell**
- promoter region
- apoptosis
- cancer prevention**
- radiation protection
- dietary intake
- topical treatment
- DNA adduct
- xeroderma pigmentosum
- seborrheic keratosis
- genetic complementation
- DNA synthesis
- Cockayne syndrome: ET, etiology
- trichothiodystrophy: ET, etiology
- protein function
- DNA transcription
- signal transduction
- radiation dose
- systemic disease
- cytokine production
- human
- nonhuman
- review
- priority journal

Drug Descriptors:

reactive oxygen metabolite: TO, drug toxicity  
protein p53: EC, endogenous compound  
Rac protein: EC, endogenous compound  
antioxidant: PD, pharmacology  
antioxidant: TP, topical drug administration  
polyphenol derivative: PD, pharmacology  
polyphenol derivative: PO, oral drug administration  
polyphenol derivative: TP, topical drug administration  
ascorbic acid: PD, pharmacology  
ascorbic acid: TP, topical drug administration  
alpha tocopherol: PD, pharmacology  
alpha tocopherol: TP, topical drug administration  
cyclobutane derivative: TO, drug toxicity  
pyrimidine derivative: TO, drug toxicity  
pyrimidinone derivative: TO, drug toxicity  
thymine: TO, drug toxicity  
cytosine: TO, drug toxicity  
8 hydroxydeoxyguanosine: TO, drug toxicity  
protein: EC, endogenous compound  
membrane protein: EC, endogenous compound  
protein xpd: EC, endogenous compound  
protein XPB: EC, endogenous compound  
mitogen activated protein kinase 1: EC, endogenous compound  
mitogen activated protein kinase 2: EC, endogenous compound  
transcription factor AP 1: EC, endogenous compound  
protein kinase C delta: EC, endogenous compound  
interleukin 12: EC, endogenous compound  
gamma interferon: EC, endogenous compound  
interleukin 10: EC, endogenous compound  
green tea extract: PD, pharmacology  
green tea extract: PO, oral drug administration  
black tea extract: PD, pharmacology  
black tea extract: PO, oral drug administration  
phytic acid: EC, endogenous compound  
olive oil: PD, pharmacology  
oleuropein: PD, pharmacology  
unindexed drug  
unclassified drug

RN (ascorbic acid) 134-03-2, 15421-15-5, 50-81-7; (alpha tocopherol) 1406-18-4, 1406-70-8, 52225-20-4, 58-95-7, 59-02-9; (thymine) 65-71-4; (cytosine) 71-30-7; (protein) 67254-75-5; (mitogen activated protein kinase 1) 137632-07-6; (mitogen activated protein kinase 2) 137632-08-7; (interleukin 12) 138415-13-1; (gamma interferon) 82115-62-6; (phytic acid) 83-86-3; (olive oil) 8001-25-0; (oleuropein) 32619-42-4

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ACCESSION NUMBER: 2003035183 EMBASE

TITLE: The randomized controlled trial in studies using biomarkers.

AUTHOR: Vineis P.

CORPORATE SOURCE: P. Vineis, Dipt. di Sci. Biomed. e Oncol. Umana, University of Torino, via Santena 7, Torino, Italy.  
paolo.vineis@unito.it

SOURCE: Biomarkers, (2003) Vol. 8, No. 1, pp. 13-32. .  
Refs: 21

ISSN: 1354-750X CODEN: BIOMFA

COUNTRY: United Kingdom

DOCUMENT TYPE: Journal; General Review

FILE SEGMENT: 016 Cancer  
017 Public Health, Social Medicine and Epidemiology  
028 Urology and Nephrology  
029 Clinical Biochemistry  
030 Pharmacology  
037 Drug Literature Index

LANGUAGE: English

SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 20030130

Last Updated on STN: 20030130

AB The randomized controlled trial (RCT) is a scientific experiment during which observations on the effects of therapy or a preventive action are conducted by the researcher under rigorous control. The purpose of the experiment is to clear the uncertainties surrounding a clinical/research issue and involves isolating the 'treatment' and 'end result' variables from external influences. RCTs therefore make use of scientific method standards: measuring, which includes the possibility of reproducing observations; controlling factors unconnected to the cause-effect relationship of interest; and the external verification or 'falsification' of the cause-effect relationship. Many RCTs are now including biomarkers to answer scientific questions in a more accurate way. In the present methodological paper, the main aspects involved in the design and conduction of a trial are discussed, with special emphasis on the use of biomarkers. Aspects that are often overlooked by scientists involved in the design of trials include multiple comparisons, subgroup analysis, the duration of the observations, the use of surrogate endpoints, and ethical issues. This review summarizes the main issues that should be addressed in a protocol, and illustrates these with an example.

CT Medical Descriptors:  
experimental design  
clinical observation  
clinical research  
methodology  
standardization  
medical ethics  
clinical protocol  
DNA damage  
mutagenic activity  
cancer prevention  
bladder cancer: PC, prevention  
randomized controlled trial  
DNA adduct  
bladder carcinogenesis  
dietary intake  
nutritional value  
human  
clinical trial  
review  
Drug Descriptors:  
\*flavanoid: CT, clinical trial  
\*flavanoid: PD, pharmacology  
\*biological marker  
antioxidant: CT, clinical trial  
antioxidant: PD, pharmacology  
antimutagenic agent: CT, clinical trial  
antimutagenic agent: PD, pharmacology  
2 amino 1 methyl 6 phenylimidazo[4,5 b]pyridine  
carcinogen  
oleuropein

polyphenol: EC, endogenous compound

polyphenol: PD, pharmacology

RN (2 amino 1 methyl 6 phenylimidazo[4,5 b]pyridine) 105650-23-5;  
(oleuropein) 32619-42-4; (polyphenol) 37331-26-3

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ACCESSION NUMBER: 2002286207 EMBASE

TITLE: Exocyclic DNA adducts as oxidative stress markers in colon carcinogenesis: Potential role of lipid peroxidation, dietary fat and antioxidants.

AUTHOR: Bartsch H.; Nair J.; Owen R.W.

CORPORATE SOURCE: H. Bartsch, Div. of Toxicol./Cancer Risk Factors, German Cancer Research Center DKFZ, Im Neuenheimer Feld 280, D-69120 Heidelberg, Germany

SOURCE: Biological Chemistry, (2002) Vol. 383, No. 6, pp. 915-921.

Refs: 47

ISSN: 1431-6730 CODEN: BICHF3

COUNTRY: Germany

DOCUMENT TYPE: Journal; General Review

FILE SEGMENT: 005 General Pathology and Pathological Anatomy  
016 Cancer  
030 Pharmacology  
037 Drug Literature Index  
048 Gastroenterology

LANGUAGE: English

SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 20020829

Last Updated on STN: 20020829

AB Molecular pathways to colorectal **cancer** involve multiple genetic changes, whereby extensive oxyradical damage causes mutations in **cancer**-related genes and leads to a cycle of cell death and regeneration. Besides direct oxidative DNA-damage, reactive oxygen and nitrogen species can induce etheno ( $\epsilon$ )-DNA adducts mainly via trans-4-hydroxy-2-nonenal, generated as the major aldehyde by lipid peroxidation (LPO) of  $\omega$ -6 PUFAs. Patients with familial adenomatous polyposis (FAP) develop multiple colorectal adenomas. In affected tissues increased LPO could be triggered due to increased arachidonic acid metabolism as a result of elevated cyclooxygenase. Our studies demonstrated an increased  $\epsilon$ -DNA adduct level in affected colon epithelia of FAP patients.  $\epsilon$ -DNA adducts are promutagenic and can cause genomic instability that drives colorectal adenoma to malignancy. We have further investigated the potential chemopreventive properties of olive oil and its polyphenolic components. 'Mediterranean diet', of which olive oil is a major fatty acid source, has protective effects against human breast and colorectal **cancers**. Olive oil extracts and the newly identified lignan fractions showed high antioxidant capacity in vitro. As  $\epsilon$ -DNA adducts are biomarkers for oxidative stress and LPO induced DNA damage, they can verify the efficacy of newly identified antioxidants, e.g. from olive oil, as chemopreventive agents against colon carcinogenesis.

CT Medical Descriptors:

\*DNA adduct

\*colon carcinogenesis

oxidative stress

lipid peroxidation

fat intake

**colorectal cancer: DI, diagnosis**

colorectal cancer: ET, etiology  
gene mutation  
cell death  
cell regeneration  
DNA damage  
adenomatous polyp: DI, diagnosis  
arachidonic acid metabolism  
colon mucosa  
genome  
malignant transformation  
cancer prevention  
breast cancer: DI, diagnosis  
in vitro study  
drug structure  
antineoplastic activity  
human  
female  
controlled study  
human tissue  
review  
priority journal  
Drug Descriptors:  
\*DNA: EC, endogenous compound  
\*antioxidant: AN, drug analysis  
\*antioxidant: CM, drug comparison  
\*antioxidant: PD, pharmacology  
tumor marker: EC, endogenous compound  
lipid: EC, endogenous compound  
fat  
reactive oxygen metabolite: EC, endogenous compound  
nitrogen: EC, endogenous compound  
4 hydroxynonenal: EC, endogenous compound  
aldehyde derivative: EC, endogenous compound  
omega 6 fatty acid  
arachidonic acid: EC, endogenous compound  
prostaglandin synthase: EC, endogenous compound  
promutagen  
olive oil: AN, drug analysis  
olive oil: CM, drug comparison  
olive oil: PD, pharmacology  
polyphenol derivative: AN, drug analysis  
polyphenol derivative: CM, drug comparison  
polyphenol derivative: PD, pharmacology  
fatty acid  
lignan derivative: AN, drug analysis  
lignan derivative: CM, drug comparison  
lignan derivative: PD, pharmacology  
secoiridoid: AN, drug analysis  
secoiridoid: PD, pharmacology  
oleuropein: AN, drug analysis  
oleuropein: PD, pharmacology  
hydroxytyrosol: AN, drug analysis  
hydroxytyrosol: PD, pharmacology  
tyrosol: AN, drug analysis  
tyrosol: CM, drug comparison  
tyrosol: PD, pharmacology  
trolox C: CM, drug comparison  
trolox C: PD, pharmacology  
alpha tocopherol

RN (DNA) 9007-49-2; (lipid) 66455-18-3; (nitrogen) 7727-37-9; (4 hydroxynonenal) 29343-52-0, 75899-68-2; (arachidonic acid) 506-32-1, 6610-25-9, 7771-44-0; (prostaglandin synthase) 39391-18-9, 59763-19-8, 9055-65-6; (olive oil) 8001-25-0; (oleuropein) 32619-42-4; (hydroxytyrosol) 10597-60-1; (tyrosol) 501-94-0; (trolox C) 56305-04-5; (alpha tocopherol) 1406-18-4, 1406-70-8, 52225-20-4, 58-95-7, 59-02-9

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ACCESSION NUMBER: 2000409319 EMBASE  
TITLE: Protective effect of topically applied olive oil against photocarcinogenesis following UVB exposure of mice.  
AUTHOR: Budiyanto A.; Ahmed N.U.; Wu A.; Bito T.; Nikaido O.; Osawa T.; Ueda M.; Ichihashi M.  
CORPORATE SOURCE: M. Ueda, Department of Dermatology, Kobe University School of Medicine, 7-5-1 Kusunoki-cho, Chuo-ku, Kobe 650-0017, Japan. mueda@med.kobe-u.ac.jp  
SOURCE: Carcinogenesis, (2000) Vol. 21, No. 11, pp. 2085-2090. .  
Refs: 31  
ISSN: 0143-3334 CODEN: CRNGDP  
COUNTRY: United Kingdom  
DOCUMENT TYPE: Journal; Article  
FILE SEGMENT: 013 Dermatology and Venereology  
016 Cancer  
030 Pharmacology  
037 Drug Literature Index  
052 Toxicology  
LANGUAGE: English  
SUMMARY LANGUAGE: English  
ENTRY DATE: Entered STN: 20001213  
Last Updated on STN: 20001213

AB Reactive oxygen species have been shown to play a role in ultraviolet light (UV)-induced skin carcinogenesis. Vitamin E and green tea polyphenols reduce experimental skin **cancers** in mice mainly because of their antioxidant properties. Since olive oil has also been reported to be a potent antioxidant, we examined its effect on UVB-induced skin carcinogenesis in hairless mice. Extra-virgin olive oil was applied topically before or after repeated exposure of mice to UVB. The onset of UVB-induced skin **tumors** was delayed in mice painted with olive oil compared with UVB control mice. However, with increasing numbers of UVB exposures, differences in the mean number of **tumors** between UVB control mice and mice pretreated with olive oil before UVB exposure (pre-UVB group) were lost. In contrast, mice that received olive oil after UVB exposure (post-UVB group) showed significantly lower numbers of **tumors** per mouse than those in the UVB control group throughout the experimental period. The mean number of **tumors** per mouse in the UVB control, pre-UVB and post-UVB groups was 7.33, 6.69 and 2.64, respectively, in the first experiment, and 8.53, 9.53 and 3.36 in the second experiment. Camellia oil was also applied, using the same experimental protocol, but did not have a suppressive effect. Immunohistochemical analysis of DNA damage in the form of cyclobutane pyrimidine dimers (CPD), (6-4) photoproducts and 8-hydroxy-2'-deoxyguanosine (8-OHdG) in samples taken 30 min after a single exposure of UVB showed no significant difference between UVB-irradiated control mice and the pre-UVB group. In the post-UVB group, there were lower levels of 8-OHdG in epidermal nuclei, but the formation of CPD and (6-4) photoproducts did not differ. Exposure of olive oil to UVB before application abrogated the protective effect on 8-OHdG formation. These results indicate that olive oil topically applied after UVB exposure can

effectively reduce UVB-induced murine skin tumors, possibly via its anti-oxidant effects in reducing DNA damage by reactive oxygen species, and that the effective component may be labile to UVB.

## CT Medical Descriptors:

- \*ultraviolet B radiation
- \*skin carcinogenesis: DT, drug therapy
- \*skin carcinogenesis: PC, prevention
- phototoxicity: DT, drug therapy
- phototoxicity: PC, prevention

## cancer prevention

skin protection

radiation exposure

tea

drug potency

antioxidant activity

nude mouse

skin tumor: DT, drug therapy

skin tumor: PC, prevention

cancer inhibition

tumor growth: DT, drug therapy

tumor growth: PC, prevention

immunohistochemistry

DNA damage

cell nucleus

epidermis cell

nonhuman

female

mouse

animal experiment

animal model

controlled study

animal tissue

article

priority journal

## Drug Descriptors:

\*olive oil: CM, drug comparison

\*olive oil: DT, drug therapy

\*olive oil: PD, pharmacology

\*olive oil: TP, topical drug administration

skin protective agent: CM, drug comparison

skin protective agent: DT, drug therapy

skin protective agent: PD, pharmacology

skin protective agent: TP, topical drug administration

reactive oxygen metabolite: EC, endogenous compound

alpha tocopherol: DT, drug therapy

alpha tocopherol: PD, pharmacology

polyphenol: DT, drug therapy

polyphenol: PD, pharmacology

plant extract: CM, drug comparison

plant extract: DT, drug therapy

plant extract: PD, pharmacology

plant extract: TP, topical drug administration

antioxidant: CM, drug comparison

antioxidant: DT, drug therapy

antioxidant: PD, pharmacology

antioxidant: TP, topical drug administration

camellia oil: CM, drug comparison

camellia oil: PD, pharmacology

cyclobutane derivative: EC, endogenous compound

pyrimidine dimer: EC, endogenous compound  
 8 hydroxydeoxyguanosine: EC, endogenous compound  
 DNA: EC, endogenous compound  
 gene product: EC, endogenous compound  
 beta carotene: EC, endogenous compound  
 ascorbic acid: EC, endogenous compound  
 scavenger: EC, endogenous compound  
 triterpene derivative: CM, drug comparison  
 triterpene derivative: PD, pharmacology  
 phorbol 13 acetate 12 myristate  
 photoprotein: EC, endogenous compound  
 epicatechin gallate  
 epigallocatechin  
 epigallocatechin gallate  
 Ras protein: EC, endogenous compound  
 phenol derivative  
 oleuropein  
 squalene  
 hydroxymethylglutaryl coenzyme A reductase: EC, endogenous compound  
 4 (methylnitrosamino) 1 (3 pyridyl) 1 butanone  
 azoxymethane  
 unclassified drug

RN (olive oil) 8001-25-0; (alpha tocopherol) 1406-18-4, 1406-70-8,  
 52225-20-4, 58-95-7, 59-02-9; (polyphenol) 37331-26-3; (pyrimidine dimer)  
 25247-63-6; (DNA) 9007-49-2; (beta carotene) 7235-40-7; (ascorbic acid)  
 134-03-2, 15421-15-5, 50-81-7; (phorbol 13 acetate 12 myristate)  
 16561-29-8; (epicatechin gallate) 863-03-6; (epigallocatechin) 970-74-1;  
 (epigallocatechin gallate) 989-51-5; (oleuropein) **32619-42-4**;  
 (squalene) 111-02-4, 7683-64-9; (hydroxymethylglutaryl coenzyme A  
 reductase) 37250-24-1; (4 (methylnitrosamino) 1 (3 pyridyl) 1 butanone)  
 64091-91-4; (azoxymethane) 25843-45-2

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ACCESSION NUMBER: 2000163671 EMBASE  
 TITLE: [Polyphenols: Simple structures with high potency].  
 POLYPHENOLE: EINFACHE STRUKTUREN MIT HOHEM POTENZIAL.  
 AUTHOR: Metz G.  
 CORPORATE SOURCE: Dr. G. Metz, Auf dem Rucken 29, 89146 Blaubeuren, Germany  
 SOURCE: Pharmazeutische Zeitung, (20 Apr 2000) Vol. 145, No. 16,  
 pp. 23-28. .  
 Refs: 6  
 ISSN: 0031-7136 CODEN: PZSED5  
 COUNTRY: Germany  
 DOCUMENT TYPE: Journal; (Short Survey)  
 FILE SEGMENT: 030 Pharmacology  
 037 Drug Literature Index  
 LANGUAGE: German  
 ENTRY DATE: Entered STN: 20000525  
 Last Updated on STN: 20000525

DATA NOT AVAILABLE FOR THIS ACCESSION NUMBER

CT Medical Descriptors:  
 \*drug structure  
 drug potency  
 antineoplastic activity  
 short survey  
 Drug Descriptors:  
 \*polyphenol derivative  
 coumarin

furocoumarin  
antioxidant  
propolis  
oleuropein

RN (coumarin) 91-64-5; (propolis) 8012-89-3; (oleuropein) 32619-42-4

L18 ANSWER 40 OF 47 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on  
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ACCESSION NUMBER: 2005:329527 BIOSIS

DOCUMENT NUMBER: PREV200510114940

TITLE: Quantitation of oleuropein and related metabolites in  
decoctions of Olea europaea leaves from ten Greek  
cultivated varieties by HPLC with diode array detection  
(HPLC-DAD).

AUTHOR(S): Agalias, Apostolis; Melliou, Eleni; Magiatis, Prokopios;  
Mitaku, Sofia [Reprint Author]; Gikas, Evangelos;  
Tsarbopoulos, Anthony

CORPORATE SOURCE: Univ Athens, Dept Pharm, Div Pharmacognosy and Nat Prod  
Chem, Panepistimiopolis Zografou, GR-15771 Athens, Greece  
mitakou@pharm.uoa.gr

SOURCE: Journal of Liquid Chromatography & Related Technologies,  
(2005) Vol. 28, No. 10, pp. 1557-1571.

ISSN: 1082-6076.

DOCUMENT TYPE: Article

LANGUAGE: English

ENTRY DATE: Entered STN: 25 Aug 2005

Last Updated on STN: 25 Aug 2005

AB An extraction procedure and chromatographic methodology for the  
simultaneous quantitation of four major constituents in the boiling water  
extracts (decoctions) of Olea europaea leaves has been developed. The  
four studied constituents were oleuropein, elenolic acid, hydroxytyrosol,  
and tyrosol. The quantitation was performed using HPLC-DAD, whereas  
qualitative data were acquired using LC-MS. The developed methodology was  
applied in the study-of ten Olea europaea varieties commonly cultivated in  
Greece. The chromatographic analysis revealed important differences among  
the varieties. The decoction of variety gaidouroelia was identified as  
the best source of oleuropein, but it was completely lacking of elenolic  
acid. The decoction of variety koronaiiki was the best source of  
hydroxytyrosol, whereas the variety mastoides was the best source of  
tyrosol and elenolic acid. In addition, the methanol and acetone extracts  
of one of the studied varieties (koronaiiki) were investigated, in order  
to compare the concentration of oleuropein in the extracts and the  
decoction. Interestingly, only a very low percent of the total oleuropein  
is present in the traditionally prepared decoction, while elenolic acid,  
which is a minor constituent of the extracts, was found to be one of the  
major constituents of the decoction.

CC Pathology - Therapy 12512

Pharmacology - Cardiovascular system 22010

Neoplasms - Therapeutic agents and therapy 24008

Horticulture - Tropical, subtropical fruits and plantation crops 53004

Pharmacognosy and pharmaceutical botany 54000

IT Major Concepts

Methods and Techniques; Pharmacognosy (Pharmacology)

IT Parts, Structures, & Systems of Organisms

leaves

IT Chemicals & Biochemicals

Olea europaea decoction: antineoplastic-drug,  
antiarrhythmic-drug, antihypertensive-drug, cardiovascular-drug;  
oleuropein: antineoplastic-drug, antiarrhythmic-drug,

antihypertensive-drug, cardiovascular-drug; hydroxytyrosol:  
**antineoplastic**-drug, antiarrhythmic-drug, antihypertensive-  
 drug, cardiovascular-drug; tyrosol: **antineoplastic**-drug,  
 antiarrhythmic-drug, antihypertensive-drug, cardiovascular-drug;  
 elenolic acid: **antineoplastic**-drug, antiarrhythmic-drug,  
 antihypertensive-drug, cardiovascular-drug

## IT Methods &amp; Equipment

LC-MS [liquid chromatography-mass spectrometry]: laboratory techniques,  
 spectrum analysis techniques, chromatographic techniques; HPLC-DAD  
 [high performance liquid chromatography-diode array detection]:  
 laboratory techniques, chromatographic techniques

GT Greece (Europe, Palearctic region)

## ORGN Classifier

Oleaceae 26475

## Super Taxa

Dicotyledones; Angiospermae; Spermatophyta; Plantae

## Organism Name

Olea europaea (species): medicinal plant, tropical/subtropical fruit  
cropOlea europaea gaidouroelia (variety): medicinal plant,  
tropical/subtropical fruit cropOlea europaea koronaiiki (variety): medicinal plant,  
tropical/subtropical fruit cropOlea europaea mastoides (variety): medicinal plant,  
tropical/subtropical fruit crop

## Taxa Notes

Angiosperms, Dicots, Plants, Spermatophytes, Vascular Plants

RN 32619-42-4 (oleuropein)

10597-60-1 (hydroxytyrosol)

501-94-0 (tyrosol)

34422-12-3 (elenolic acid)

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ACCESSION NUMBER: 2004:350361 BIOSIS

DOCUMENT NUMBER: PREV200400348082

TITLE: Production of highly purified hydroxytyrosol from Olea  
europaea leaf extract biotransformed by hyperthermophilic  
beta-glycosidase.AUTHOR(S): Briante, Raffaella; Patumi, Maurizio; Febbraio, Ferdinando;  
Nucci, Roberto [Reprint Author]CORPORATE SOURCE: Ist Biochim Prot, CNR, Via Marconi 10, I-80125, Naples,  
Italy

r.nucci@ibp.cnr.it

SOURCE: Journal of Biotechnology, (July 1 2004) Vol. 111, No. 1,  
pp. 67-77. print.

ISSN: 0168-1656 (ISSN print).

DOCUMENT TYPE: Article

LANGUAGE: English

ENTRY DATE: Entered STN: 18 Aug 2004

Last Updated on STN: 18 Aug 2004

AB A large amount of highly purified hydroxytyrosol (91-94% in weight) is  
 obtained in short time by a simple biotransformation of Olea europaea leaf  
 extract by a partially purified hyperthermophilic beta-glycosidase  
 immobilized on chitosan support. The biotransformation conditions have  
 been modulated for increasing the hydroxytyrosol yield, whilst chitosan  
 and chitin matrices are used as adsorbent materials in liquid phase  
 hydroxytyrosol extraction from the biotransformed mixtures. Natural and  
 non-toxic hydroxytyrosol has been by this way produced from a vegetal

source, and this compound appeared for the first time highly purified by natural and biocompatible safe biopolymers in comparison to previous results. Moreover, the GC analyses have displayed that the eluates from a two-step bioreactor have qualitative composition very similar to that of the extra-virgin olive oil polar fraction. The proposed bioreactor could also find application in the utilization of olive mill waste waters (OMWW), medium rich in large amounts of oleuropein, which can be converted in pharmacologically active compounds. Copyright 2004 Elsevier B.V. All rights reserved.

CC Biochemistry studies - Carbohydrates 10068  
 Biophysics - Bioenergetics: electron transport and oxidative phosphorylation 10510  
 Digestive system - Pathology 14006  
 Cardiovascular system - Heart pathology 14506  
 Reproductive system - Pathology 16506  
 Neoplasms - Pathology, clinical aspects and systemic effects 24004  
 Public health: epidemiology - Miscellaneous 37056  
 Plant physiology - Photosynthesis 51506

IT Major Concepts  
 Bioenergetics (Biochemistry and Molecular Biophysics); Epidemiology (Population Studies)

IT Diseases  
 breast **cancer**: neoplastic disease, reproductive system disease/female  
 Breast **Neoplasms** (MeSH)

IT Diseases  
 colon **cancer**: digestive system disease, **neoplastic** disease  
 Colonic **Neoplasms** (MeSH)

IT Diseases  
 coronary heart disease: heart disease, CHD  
 Coronary Disease (MeSH)

IT Chemicals & Biochemicals  
 beta-glycosidase [EC 3.2.1.21]: hyperthermophilic; biopolymers; chitin; chitosan; hydroxytyrosol: highly purified; oleuropein; olive oil

IT Methods & Equipment  
 gas chromatography: chromatographic techniques, laboratory techniques

ORGN Classifier  
 Oleaceae 26475  
 Super Taxa  
 Dicotyledones; Angiospermae; Spermatophyta; Plantae  
 Organism Name  
 Olea europaea (species): leaf extract  
 Taxa Notes  
 Angiosperms, Dicots, Plants, Spermatophytes, Vascular Plants

RN 39346-29-7 (beta-glycosidase)  
 9001-22-3 (beta-glycosidase)  
 39346-29-7 (EC 3.2.1.21)  
 9001-22-3 (EC 3.2.1.21)  
 1398-61-4 (chitin)  
 9012-76-4 (chitosan)  
 10597-60-1 (hydroxytyrosol)  
**32619-42-4** (oleuropein)

L18 ANSWER 42 OF 47 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 2005:122403 BIOSIS

DOCUMENT NUMBER: PREV200500125839

TITLE: Olive oil and oxidative stress.

AUTHOR(S): Visioli, Francesco [Reprint Author]; Bogani, Paola; Grande, Simona; Gail, Claudio  
 CORPORATE SOURCE: Dept Pharmacol Sci, Univ Milan, Milan, Italy  
 francesco.visioli@unini.it  
 SOURCE: Grasas y Aceites, (January 2004) Vol. 55, No. 1, pp. 66-75.  
 print.  
 ISSN: 0017-3495 (ISSN print).  
 DOCUMENT TYPE: Article  
 LANGUAGE: English  
 ENTRY DATE: Entered STN: 1 Apr 2005  
 Last Updated on STN: 1 Apr 2005

AB In addition to the fatty acid profile of olive oil, which is high in the monounsaturated oleic acid and appears to be beneficial in reducing several risk factors for coronary heart disease and certain **cancers**, extra virgin olive oil contains a considerable amount of phenolic compounds, e.g. hydroxytyrosol and oleuropein, that are responsible for its peculiar taste and for its high stability. A body of evidence demonstrates that olive oil phenolics are powerful antioxidants. Although most of these studies have been carried out in vitro, some in vivo experiments confirm that olive oil phenolics are dose-dependently absorbed and that they retain their biological activities after ingestion. These data could in part explain the lower incidence of coronary heart disease in the Mediterranean area, where (extra virgin) olive oil is the principal source of fat.

CC Biochemistry studies - Lipids 10066  
 Nutrition - General studies, nutritional status and methods 13202  
 Cardiovascular system - Heart pathology 14506  
 Public health: epidemiology - Organic diseases and neoplasms 37054  
 Public health: epidemiology - Miscellaneous 37056

IT Major Concepts  
 Cardiovascular Medicine (Human Medicine, Medical Sciences);  
 Epidemiology (Population Studies); Nutrition

IT Diseases  
 coronary heart disease: heart disease, epidemiology  
 Coronary Disease (MeSH)

IT Chemicals & Biochemicals  
 hydroxytyrosol; oleic acid; oleuropein

IT Miscellaneous Descriptors  
 olive oil: fats and oils; oxidative stress

GT Mediterranean Region

ORGN Classifier

Hominidae 86215

Super Taxa

Primates; Mammalia; Vertebrata; Chordata; Animalia

Organism Name

human (common)

Taxa Notes

Animals, Chordates, Humans, Mammals, Primates, Vertebrates

RN 10597-60-1 (hydroxytyrosol)

112-80-1 (oleic acid)

32619-42-4 (oleuropein)

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ACCESSION NUMBER: 2004:378026 BIOSIS

DOCUMENT NUMBER: PREV200400378017

TITLE: Differential anti-inflammatory effects of phenolic compounds from olive oil identified in human whole blood cultures.

AUTHOR(S): Miles, E. A. [Reprint Author]; Zoubouli, R.; Calder, P. C.  
 CORPORATE SOURCE: Sch MedInst Human Nutr, Univ Southampton, Southampton,  
 Hants, SO16 7PX, England  
 SOURCE: Chemistry and Physics of Lipids, (June 2004) Vol. 130, No.  
 1, pp. 34-35. print.  
 Meeting Info.: 45th International Conference on the  
 Bioscience of Lipids. Ioannina, Greece. May 25-29, 2004.  
 ISSN: 0009-3084 (ISSN print).  
 DOCUMENT TYPE: Conference; (Meeting)  
 Conference; Abstract; (Meeting Abstract)  
 LANGUAGE: English  
 ENTRY DATE: Entered STN: 22 Sep 2004  
 Last Updated on STN: 22 Sep 2004

CC General biology - Symposia, transactions and proceedings 00520  
 Biochemistry studies - General 10060  
 Biochemistry studies - Proteins, peptides and amino acids 10064  
 Biochemistry studies - Lipids 10066  
 Biochemistry studies - Carbohydrates 10068  
 Food technology - General and methods 13502  
 Food technology - Fats and oils 13514  
 Cardiovascular system - Heart pathology 14506  
 Cardiovascular system - Blood vessel pathology 14508  
 Blood - Blood and lymph studies 15002  
 Blood - Blood cell studies 15004  
 Endocrine - General 17002

IT Major Concepts  
 Biochemistry and Molecular Biophysics; Blood and Lymphatics (Transport  
 and Circulation); Foods

IT Parts, Structures, & Systems of Organisms  
 whole blood: blood and lymphatics

IT Diseases  
 cardiovascular disease: heart disease, vascular disease, prevention and  
 control  
 Cardiovascular Diseases (MeSH)

IT Chemicals & Biochemicals  
 IL-6 [interleukin-6]; caffeic acid; eicosanoids; homovanillic acid;  
 inflammatory cytokines; kaempferol; lipopolysaccharide; oleuropein;  
 p-coumaric acid; phenolic compounds: differential anti-inflammatory  
 effects, olive oil-derived; prostaglandin E-2; syringic acid;  
 tumor necrosis factor-alpha; tyrosol; vanillic acid

IT Methods & Equipment  
 ELISA: immunologic techniques, laboratory techniques

IT Miscellaneous Descriptors  
 olive oil: fats and oils; olive oil-rich Mediterranean diet

ORGN Classifier  
 Hominidae 86215  
 Super Taxa  
 Primates; Mammalia; Vertebrata; Chordata; Animalia  
 Organism Name  
 human (common)  
 Taxa Notes  
 Animals, Chordates, Humans, Mammals, Primates, Vertebrates

RN 331-39-5 (caffeic acid)  
 306-08-1 (homovanillic acid)  
 520-18-3 (kaempferol)  
 32619-42-4 (oleuropein)  
 7400-08-0 (p-coumaric acid)  
 363-24-6 (prostaglandin E-2)  
 530-57-4 (syringic acid)

501-94-0 (tyrosol)  
121-34-6 (vanillic acid)

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STN

ACCESSION NUMBER: 2002:421390 BIOSIS  
DOCUMENT NUMBER: PREV200200421390  
TITLE: Biological properties of olive oil phytochemicals.  
AUTHOR(S): Visioli, Francesco [Reprint author]; Galli, Claudio  
CORPORATE SOURCE: University of Milan, Institute of Pharmacological Sciences,  
Via Balzaretti 9, 20133, Milan, Italy  
francesco.visioli@unimi.it  
SOURCE: Critical Reviews in Food Science and Nutrition, (May, 2002)  
Vol. 42, No. 3, pp. 209-221. print.  
ISSN: 1040-8398.  
DOCUMENT TYPE: Article  
General Review; (Literature Review)  
LANGUAGE: English  
ENTRY DATE: Entered STN: 7 Aug 2002  
Last Updated on STN: 7 Aug 2002

CC Biochemistry studies - General 10060  
Biochemistry studies - Lipids 10066  
Nutrition - General studies, nutritional status and methods 13202  
Food technology - General and methods 13502  
Food technology - Fats and oils 13514  
Cardiovascular system - Physiology and biochemistry 14504  
Cardiovascular system - Heart pathology 14506  
Neoplasms - Pathology, clinical aspects and systemic effects 24004  
IT Major Concepts  
Biochemistry and Molecular Biophysics; Cardiovascular System (Transport  
and Circulation); Foods; Nutrition  
IT Diseases  
cancer: neoplastic disease  
Neoplasms (MeSH)  
IT Diseases  
coronary heart disease: heart disease, CHD  
Coronary Disease (MeSH)  
IT Chemicals & Biochemicals  
antioxidants; fat; hydroxytyrosol; oleuropein; phenolic compounds;  
phytochemicals; squalene  
IT Miscellaneous Descriptors  
Mediterranean diet: healthful effects; olive oil: fats and oils  
ORGN Classifier  
Hominidae 86215  
Super Taxa  
Primates; Mammalia; Vertebrata; Chordata; Animalia  
Organism Name  
human  
Taxa Notes  
Animals, Chordates, Humans, Mammals, Primates, Vertebrates  
RN 32619-42-4 (oleuropein)  
111-02-4 (squalene)

L18 ANSWER 45 OF 47 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on  
STN

ACCESSION NUMBER: 2002:143530 BIOSIS  
DOCUMENT NUMBER: PREV200200143530  
TITLE: Antioxidant and other biological activities of phenols from  
olives and olive oil.

AUTHOR(S): Visioli, Francesco [Reprint author]; Poli, Andrea; Galli, Claudio  
CORPORATE SOURCE: Department of Pharmacological Sciences, University of Milan, Via Balzaretti 9, 20133, Milan, Italy  
francesco.visioli@unimi.it  
SOURCE: Medicinal Research Reviews, (January, 2002) Vol. 22, No. 1, pp. 65-75. print.  
CODEN: MRREDD. ISSN: 0198-6325.  
DOCUMENT TYPE: Article  
LANGUAGE: English  
ENTRY DATE: Entered STN: 14 Feb 2002  
Last Updated on STN: 26 Feb 2002

CC Biochemistry studies - General 10060  
Nutrition - General studies, nutritional status and methods 13202  
Cardiovascular system - Heart pathology 14506  
Cardiovascular system - Blood vessel pathology 14508  
Neoplasms - Pathology, clinical aspects and systemic effects 24004

IT Major Concepts  
Nutrition

IT Diseases  
atherosclerosis: vascular disease  
Arteriosclerosis (MeSH)

IT Diseases  
cancer: neoplastic disease  
Neoplasms (MeSH)

IT Diseases  
coronary heart disease: heart disease  
Coronary Disease (MeSH)

IT Chemicals & Biochemicals  
hydroxytyrosol: phenolic compound; oleuropein: phenolic compound;  
phenols: antioxidant

IT Miscellaneous Descriptors  
Mediterranean diet; olive oil: vegetable oil; olives: food

RN 32619-42-4 (oleuropein)  
108-95-2 (phenols)

L18 ANSWER 46 OF 47 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on  
STN

ACCESSION NUMBER: 2001:417654 BIOSIS

DOCUMENT NUMBER: PREV200100417654

TITLE: Water-soluble extract from olives.

AUTHOR(S): Crea, Roberto [Inventor]; Caglioti, Luciano [Inventor,  
Reprint author]

CORPORATE SOURCE: Rome, Italy  
ASSIGNEE: CreAgri L.L.C., Hayward, CA, USA

PATENT INFORMATION: US 6197308 20010306

SOURCE: Official Gazette of the United States Patent and Trademark  
Office Patents, (Mar. 6, 2001) Vol. 1244, No. 1. e-file.  
CODEN: OGUPE7. ISSN: 0098-1133.

DOCUMENT TYPE: Patent

LANGUAGE: English

ENTRY DATE: Entered STN: 29 Aug 2001  
Last Updated on STN: 22 Feb 2002

AB The invention provides olive-derived vegetation water substantially free of monophenolic compounds (e.g., tyrosol and its derivatives) from olive pits. According to one aspect of the invention, the pits or seeds are removed from the olives prior to pressing. The pitless pulp or meat is then pressed to obtain a liquid-phase mixture including olive oil, vegetation water, and solid by-products. The vegetation water is

separated from the rest of the liquid-phase mixture and collected. The vegetation water is useful as a source of oleuropein.

NCL 424195100  
 CC General biology - Miscellaneous 00532  
 IT Major Concepts  
     Methods and Techniques; Pharmacognosy (Pharmacology)  
 IT Chemicals & Biochemicals  
     oleuropein: antibacterial-drug, antifungal-drug, antiinflammatory-drug,  
     **antineoplastic**-drug, antiviral-drug, cardiovascular-drug,  
     antioxidant; olive-derived vegetation water  
 IT Methods & Equipment  
     olive-derived vegetation water production: production method  
 ORGN Classifier  
     Oleaceae 26475  
     Super Taxa  
         Dicotyledones; Angiospermae; Spermatophyta; Plantae  
     Organism Name  
         olive  
     Taxa Notes  
         Angiosperms, Dicots, Plants, Spermatophytes, Vascular Plants  
 RN 32619-42-4 (oleuropein)

L18 ANSWER 47 OF 47 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 2000:236012 BIOSIS  
 DOCUMENT NUMBER: PREV200000236012  
 TITLE: Skin anti-inflammatory activity of hydroxytyrosol and its acid form 3,4 dihydroxyphenylacetic acid.  
 AUTHOR(S): Despotopoulos, A. [Reprint author]; Rallis, M. [Reprint author]; Marakos, P. [Reprint author]; Rodis, P.; Proxenia, N.; Demetzos, C. [Reprint author]; Xenos, K.; Katsarou, A.; Tsaldaris, I. [Reprint author]; Papaioannou, G. [Reprint author]  
 CORPORATE SOURCE: University of Athens, Athens, Greece  
 SOURCE: Journal of Investigative Dermatology, (April, 2000) Vol. 114, No. 4, pp. 881. print.  
 Meeting Info.: 61st Annual Meeting of the Society for Investigative Dermatology. Chicago, Illinois, USA. May 10-14, 2000.  
 CODEN: JIDEAE. ISSN: 0022-202X.  
 DOCUMENT TYPE: Conference; (Meeting)  
                   Conference; Abstract; (Meeting Abstract)  
 LANGUAGE: English  
 ENTRY DATE: Entered STN: 7 Jun 2000  
                   Last Updated on STN: 5 Jan 2002

CC Biochemistry studies - Vitamins 10063  
     Biochemistry studies - Proteins, peptides and amino acids 10064  
     Biophysics - Methods and techniques 10504  
     Immunology - General and methods 34502  
     Pharmacology - Connective tissue, bone and collagen-acting drugs 22012  
     General biology - Symposia, transactions and proceedings 00520  
 IT Major Concepts  
     Pharmacology  
 IT Chemicals & Biochemicals  
     3,4-dihydroxyphenylacetic acid; alpha-tocopherol; hydroxytyrosol:  
     antiinflammatory-drug, antioxidant characteristics, skin  
     antiinflammatory activity; interleukin 1 beta; oleuropein: hydrolysis;  
     **tumor** necrosis factor-alpha  
 IT Methods & Equipment

ELISA: analytical method; HPLC [high performance liquid chromatography]: analytical method; electrochemical detection: analytical method

IT Miscellaneous Descriptors

UVB light; green olive: food; lipid peroxidation; Meeting Abstract

ORGN Classifier

Muridae 86375

Super Taxa

Rodentia; Mammalia; Vertebrata; Chordata; Animalia

Organism Name

mouse

Taxa Notes

Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Rodents, Vertebrates

RN 102-32-9 (3,4-dihydroxyphenylacetic acid)

59-02-9 (alpha-tocopherol)

32619-42-4 (oleuropein)

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